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PUBLIC WORKS COMMISSION
1869

Notes of Evidence - NO. 2

Abandonment of Small Tanks
to the Ryots.

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Public Works Commission —

1869.

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Abandonment of Small Tanks
to the Ryots.



A50 (B) 337 No 1057

RECORD OF PROCEEDINGS

Replies of Mr. J. Fraser, Collector of the Godavery District, to Districtular No. 3.
(Dated 27th February 1869.)

ABANDONMENT OF SMALL TANKS TO THE RYOTS.

Question 1. *As an alternative to the maintenance of minor irrigation works, by the commutation or enforcement of Kudi-maramut, or by the imposition of a new irrigation cess, what do you think of the transfer to the ryots of a certain class of minor irrigation works? —* A plan that will not, I believe, succeed in this District.

Q. 5. *Would the ryots, as a general rule, be glad to take over these minor works on a reduced assessment, subject to the contingency of executing future repairs themselves? —* They have hitherto not taken over one of these minor works in this District, nor are there any signs of their being likely in future to do so.

Q. 6. *Would it be necessary to put these minor works into thorough repair, before handing them over to the ryots; and what precautions would you adopt for maintaining them in thorough repair? —* I do not believe they would take them over even in perfect repair if they knew they must themselves maintain them so.

Q. 9. *Do you think that the ryots would keep up such tanks, or is gradual deterioration and final destruction to be apprehended? — for instance, should breaches occur, would the ryots be likely to close them? —* I think they would not. If breaches now occur in tanks under which there is wet cultivation, the ryots to save their crops will go to the cost of repairs of about 20 or 25 Rupees in any one case, in order to retain the water, but if the breach be such as to entail greater cost, they will voluntarily do nothing, trusting to remission if their crops fail.

Q. 10. *If so, what interests would be endangered by making over the tanks to the ryots? Would the supply of drinking water, in certain cases, be likely to be interfered with, or cut off? —* Ryots, as a rule, will keep up tanks which are the sole source of their drinking water, but these are generally in this District, other than the ones which irrigate crops.

Q. 11. *Would it be safe to give up small tanks in jungly parts of the country, where there are but few wells, and perhaps no flowing water? —* Yes, if the ryots would take them.

Q. 16. *Is the ayacut area under small tanks, generally as fit for garden cultivation, as the panjah lands in which the ryots now dig new wells? —* It is.

Q. 17. *Would you allow of cultivation in the beds of the tanks handed over? if so, how would you assess it, and how would you prevent cultivation interfering with heading up water? —* I would allow of no cultivation in tank beds. It is most mischievous, as experience has shown in many places, and leads to constant squabbles, as I know between the ryots cultivating in the bed and those below bund of the tank.

Q. 18. *Are there any tanks in your District which would be better to breach, and so allow of panjah cultivation in the bed, instead of nanjah cultivation below them? —* I know of none such.

Q. 19. *Are there any tanks in your District so silted up as to have become practically useless? and if so, how would you treat them? —* Many, and many might be advantageously repaired by Government.

Q. 21. *Do the ryots now keep up any tanks which the Government has practically abandoned? —* They do not.

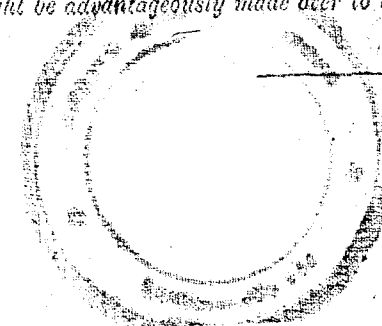
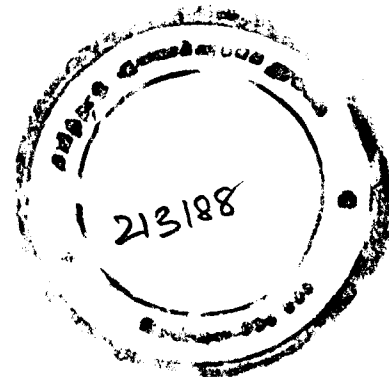
Q. 23. *Many ruined tanks have of late years been made over to the ryots to do what they like with: have such tanks been usually repaired or neglected? —* None in this District.

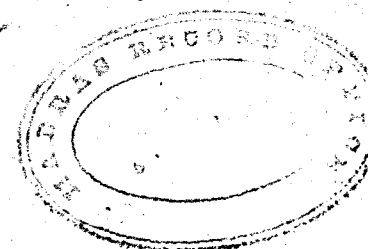
Q. 24. *Taking all the advantages and disadvantages of retaining or abandoning small tanks into consideration, would you prefer maintaining them as at present, or from any local fund, or would you hand them over to the ryots to maintain? —* The ryots will not take them.

Q. 26. *Do the figures given in your former report on this subject, include all the tanks that in your opinion might be advantageously made over to the ryots? —* Yes.

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Replics of Mr. G. A. Vardon, Supervisor, in charge of the Hospett Range
of the Bellary District, to Circular No. 3.

(Dated 4th March 1869.)

ABANDONMENT OF SMALL TANKS TO THE RYOTS.

Question 1.—As an alternative to the maintenance of minor Irrigation works, by the computation or enforcement of Kudi-maramant, or by the imposition of a new Irrigation cess, what do you think of the transfer to the ryots of a certain class of minor irrigation works?—If the ryots ask, and are able to keep up any minor Irrigation work, they may be allowed to do so, but it never should be enforced on them.

Qs. 2 and 3.—If you are in favor of this, what class of minor Irrigation works would you transfer? What general limit of area and assessment would you fix on, and what exceptions would you make?—Acreage under 50 acres, and assessment under 500 Rupees—small tanks and irrigation channels.

Q. 4.—On what principles, and on what terms would you make the transfer, and how would you ensure the enforcement of the terms?—If the ryots agreed to take over themselves any Irrigation work, then the present assessment must be reduced to such an extent will enable them to keep always in repair the work made over, the terms being enforced by a properly executed Bond drawn up by a legal adviser, with a power reserved to the Government to take back the work under their own management, should the ryots fail to abide by the terms laid down.

Q. 5.—Would the ryots, as a general rule, be glad to take over these minor works on a reduced assessment, subject to the contingency of executing future repairs themselves?—No.

Q. 6.—Would it be necessary to put these minor works into thorough repair, before handing them over to the ryots; and what precautions would you adopt for maintaining them in thorough repair?—Yes.

Q. 7.—Would it be necessary to take a written agreement from all the parties interested, before any work is made over to them; and how could the provisions of such an agreement be enforced?—Yes; the provisions of such an agreement should be enforced without a resort to Law Courts.

Q. 8.—If all the parties interested do not agree, would you hand over the work to one or more individuals, subject to their distributing water to all the cultivators according to custom; and how would you enforce such an arrangement being acted up to?—No; all parties should agree.

Q. 9.—Do you think that the ryots would keep up such tanks, or is gradual deterioration and final destruction to be apprehended? for instance, should breaches occur, would the ryots be likely to close them?—Constant supervision and check are the only means of making the ryots maintain these small works.

Q. 11.—Would it be safe to give up small tanks in jungly parts of the country, where there are but few wells, and perhaps no flowing water?—Not safe.

Q. 12.—Would you merely regard the question in a financial point of view, or are the foregoing contingencies worthy of consideration?—The question should not be regarded merely in a financial point of view.

Q. 13.—How would you re-assess the ayacut of any works that might thus be transferred?—Reduce the assessment by as much as will be required for the maintenance of the works by the ryots themselves.

Q. 15.—Would the ryots dig wells, and so improve the ayacut area permanently, w granted to them on easy terms?—Yes.

Q. 16.—Is the ayacut area under small tanks, generally as fit for garden cultivation the punjah lands in which the ryots now dig new wells?—This differs according to local and soil.

Q. 17.—Would you allow of cultivation in the beds of the tanks handed over? If how would you assess it, and how would you prevent cultivation interfering with heading water?—Cultivation should not be allowed in beds of tanks.

Q. 18.—Are there any tanks in your District which it would be better to breach, a so allow of punjah cultivation in the bed, instead of nunjah cultivation below them?—Y

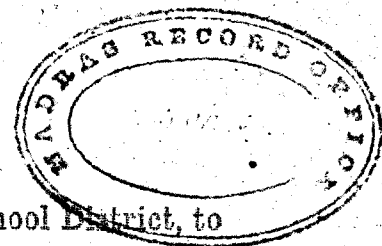
Q. 19.—Are there any tanks in your District so silted up, as to have become practical useless? and, if so, how would you treat them?—Yes.

Q. 21.—Do the ryots now keep up any tanks which the Government has practically abandoned?—In very few cases indeed.

Q. 23.—Many ruined tanks have of late years been made over to the ryots to do they like with: have such tanks been usually repaired or neglected?—Neglected as a rule.

Q. 24.—Taking all the advantages and disadvantages of retaining or abandoning small tanks into consideration, would you prefer maintaining them as at present, or any local fund, or would you hand them over to the ryots to maintain?—Make them over ryots or maintain them as at present.

Q. 25.—Would it be necessary to legislate on the subject, and what provisions would suggest for an Act?—No legislation is needed.



Replies of Mr. T. A. N. Chase, Collector of the Kurnool District, to
Circular No. 3.

(Dated 16th March. 1869.)

ABANDONMENT OF SMALL TANKS TO THE RYOTS.

Question 1.—As an alternative to the maintenance of minor irrigation works, by the commutation or enforcement of Kudli-maramut, or by the imposition of a new irrigation cess, what do you think of the transfer to the ryots of a certain class of minor irrigation works?—I would not transfer any tanks to the ryots. The consequence will be their total neglect, and the entire cultivation of the beds, which must infallibly destroy them as tanks for supplying and storing water.

Q. 2 to 8.—If you are in favor of this, what class of minor irrigation works would you transfer?—What general limit of area and assessment would you fix on, and what exceptions would you make?—On what principles, and on what terms would you make the transfer, and how would you ensure the enforcement of the terms?—Would the ryots, as a general rule, be glad to take over these minor works on a reduced assessment, subject to the contingency of executing future repairs themselves?—Would it be necessary to put these minor works into thorough repair, before handing them over to the ryots; and what precautions would you adopt for maintaining them in thorough repair?—Would it be necessary to take a written agreement from all the parties interested, before any work is made over to them; and how could the provisions of such an agreement be enforced?—If all the parties interested do not agree, would you hand over the work to one or more individuals, subject to their distributing water to all the cultivators according to custom; and how would you enforce such an arrangement being acted up to?—Require no answers from me.

Q. 9.—Do you think that the ryots would keep up such tanks, or is gradual deterioration and final destruction to be apprehended?—for instance, should breaches occur, would the ryots be likely to close them?—Is answered in answer No. 1.—I do not think the ryots would repair breaches of tanks given over to them.

Q. 10.—If so, what interests would be endangered by making over the tanks to the ryots? Would the supply of drinking water, in certain cases, be likely to be interfered with, or cut off?—The supply of irrigation and drinking water would be interfered with and cut off.

Q. 11.—Would it be safe to give up small tanks in jungly parts of the country, where there are but few wells, and perhaps no flowing water?—I see no necessity for making any exception in favor of tanks situated in jungly parts of the country.

Q. 12.—Would you merely regard the question in a financial point of view, or are the foregoing contingencies worthy of consideration?—I consider the matter both financially and as likely, as I have said before, to destroy the tanks entirely.

Q. 13.—How would you re-assess the ayacut of any works that might thus be transferred?—No answer.

Q. 14.—Could water be headed up in sufficient quantity to ensure the production of garden crops, even if nunjah crops could not be raised?—It might be so in some cases, but water for garden crops is charged at the same rate as for others, except for such crops as sugar cane; for instance, when water is required nearly all the year, then double water assessment is charged.

Q. 15.—Would the ryots dig wells, and so improve the ayacut area permanently, were it granted to them on easy terms?—I think not.

Q. 16.—Is the ayacut area under small tanks, generally as fit for garden cultivation, as the punjai lands in which the ryots now dig new wells?—In some it is fit for wet cultivation, and in some it is not, but probably not so fit as near wells which have been dug because of the richness of the surrounding land.

Q. 17.—Would you allow of cultivation in the beds of the tanks handed over? if so, how would you assess it, and how would you prevent cultivation interfering with heading up water. —No tank bed should be cultivated.

Q. 18.—Are there any tanks in your district which it would be better to breach, and so allow of punjai cultivation in the bed, instead of nunjai cultivation below them?—None.

Q. 19.—Are there any tanks in your district so silted up, as to have become practically useless? and if so, how would you treat them?—Yes. I would leave them as they are.

Q. 20.—How would you compensate Inamdars and ryots who might suffer loss by any change of the existing system?—I propose no change from the existing system.

Q. 21.—Do the ryots now keep up any tanks which the Government has practically abandoned?—None.

Q. 22.—If so, do you know of any cases in which these tanks have been allowed to go to ruin from neglect on the part of the ryots?—No answer.

Q. 23.—Many ruined tanks have of late years been made over to the ryots to do what they like with: have such tanks been usually repaired or neglected?—Generally they have been kept in order, or rather they have not required repairs, and, generally speaking, all these tank beds have been cultivated.

Q. 24.—Taking all the advantages and disadvantages of retaining or abandoning small tanks into consideration, would you prefer maintaining them as at present, or from any local fund, or would you hand them over to the ryots to maintain?—The tanks should remain as at present. The water assessment collected by Government is the fund from which repairs should be met.

Q. 25.—Would it be necessary to legislate on the subject, and what provisions would you suggest for an Act?—I see no necessity for legislation.

Q. 26.—Do the figures given in your former report on this subject, include all the tanks that in your opinion might be advantageously made over to the ryots?—I think no tanks should be given over to ryots.

over to the ryots, and what precautions would you adopt for maintaining them in thorough repair? — I think the works should be put in proper repair before being transferred. A proper Establishment should be entertained to direct the ryots in the execution of the work, and to enforce the penalty in cases where the ryots neglect their works or refuse to attend to them.

Q. 7. Would it be necessary to take a written agreement from all the parties interested, before any work is made over to them; and how could the provisions of such an agreement be enforced? — I think a written agreement would be necessary. I suppose there would be no difficulty in having it drawn up in a form to make it binding, in the same manner as other civil contracts under existing laws.

Q. 8. If all the parties interested do not agree, would you hand over the work to one or more individuals, subject to their distributing water to all the cultivators according to custom; and how would you enforce such an arrangement being acted up to? — I would not. In such cases, I would allow the work to remain as at present.

Q. 9. Do you think that the ryots would keep up such tanks, or is gradual deterioration and final destruction to be apprehended? for instance, should breaches occur, would the ryots be likely to close them? — I think final destruction is to be apprehended. The people do not, with rare exceptions, repair tanks that are now their property, and, in cases where the Collector has sufficient influence or authority to force the people to do something towards the repair of their works, they collect the amount required amongst themselves, and get the work done by the D. P. W. through the Collector. As examples of works executed in this manner, I would mention the following in my own Range:—

Deesabundum Tank of Aroongundah, repaired in 1866-67, Estimate Rs. 540.

Do do. of Paragundlapully, repaired in 1867-68, Estimate Rs. 480.

Cutting a channel from Gungatheranellere surplus channel to Mookolathoor, a hamlet of Nasampully, repaired in 1866-67, Estimate Rs. 80.

Repairing the bund of Mooshty tank of Sadac-

coopam, repaired in 1866-67, Estimate Rs. 200.

Closing breaches and repairing the bund of Ramapooram large tank, repaired in 1867-68, Estimate Rs. 440.

Do. do. Ummavanpully tank, repaired in 1867-68, Estimate Rs. 170.

Do. do. Venkatalutehoomunnappooram tank, repaired in 1867-68, Estimate Rs. 840.

Do. do. Cooppagonapully tank, repaired in 1867-68, Estimate Rs. 680.

Do. do. Themmapully tank, repaired in 1867-68, Estimate Rs. 110.

Do. do. Naragul tank, repaired in 1867-68, Estimate Rs. 330.

Q. 10. *If so, what interests would be endangered by making over the tanks to the ryots? Would the supply of drinking water, in certain cases, be likely to be interfered with, or cut off? —* The existence of the works would be endangered, and in the case of the small tanks enumerated in the précis of correspondence on this subject, we would risk the storage of no less than 250 million cubic yards of water, or sufficient to supply one million of people for 200 days in the year. It may be said that these small tanks would not hold water for 200 days, and this is true to some extent, but most of them have a depth of from 1 to 2 yards when full, and, taking an average depth of $1\frac{1}{2}$ yards, they would not be emptied by absorption and evaporation alone in less than 108 days, or at the rate of $\frac{1}{2}$ an inch of depth a day. When the people talk of so many months tank, they mean the time a tank —when full—will supply the ayacut under it, and not the time in which the water would disappear, if there was none of it drawn off for Irrigation purposes; even supposing that these tanks dry up in 2 or 3 months, their utility does not cease with the disappearance of the water, a great portion of which is absorbed in the subsoil, and held in suspension, as a feeder for all the wells in the neighbourhood. Looking at the matter in this light alone, it is of very great importance, and deserves, in my opinion, very serious consideration.

Q. 11. *Would it be safe to give up small tanks in jungly parts of the country, where there are but few wells, and perhaps no flowing water? —* I think not.

Thursday, 18th March 1869.

MEMBERS PRESENT.

The Hon'ble T. CLARKE.
Captain MULLINS.
Mr. PUCKLE.

The Hon'ble V. RAMAYENGAR.
Mr. ROBINSON.
Major SHAW STEWART.

The Hon'ble T. CLARKE, in the Chair.

Mr. O'SHAUGHNESSY, Assistant Engineer in the North District, re-called and examined.

Question 1 in Circular No. 3.—*As an alternative to the maintenance of minor irrigation works by the commutation or enforcement of kudi-maram, or by the imposition of a new irrigation cess, what do you think of the transfer to the Ryots of a certain class of minor irrigation works? —* I do not think it advisable under any circumstances.

Q. 2. *If you are in favor of this, what class of minor irrigation works would you transfer? —* Should such a course be decided upon, I would give up all river and spring channels, and all the 3rd class tanks, that is to say, tanks that can hold sufficient water to irrigate about 5 cawnies of land.

Q. 3. *What general limit of area and assessment would you fix on, and what exceptions would you make? —* I would have no limit of area or assessment in regard to the works classified above. If the people are able to manage any, they are able to manage all. I would not give up any work that receives a supply directly or indirectly from anicut channels, or tanks maintained by Government.

Q. 4. *On what principles and on what terms would you make the transfer, and how would you ensure the enforcement of the terms? —* On the assumed principle that the establishment of the D. P. W. is not sufficiently strong to enable it to give sufficient time and attention to these small works, and that the revenue derived from them

is so comparatively trifling that it would not support the required Establishment, nor provide for the required repairs. On the other hand, that the interest of the ryots in the up-keep of the works is greater than that of Government, and from the facilities which the ryots possess for executing repairs, that they could keep the works in order at a much less cost than Government could, and that it would pay the ryots to do so when the Government would lose by it; I believe that the D. P. W. Establishment, as at present organized, cannot attend sufficiently to the requirements of these works, even if the amount allotted to irrigation works in general was sufficient, which is far from having been the case hitherto; but I do not believe that the ryots will, even with the concessions which Government would be prepared to make, and with the advantage which it would be to them to have the works kept in good order, give the necessary time and attention to the proper maintenance of the works, unless forced to do so by the control and direction of an Establishment, much more numerous than the additions required to the D. P. W., and with remissions of revenue to a far greater amount than would be sufficient to enable the D. P. W. to do all that is required in a more efficient and satisfactory manner than the ryots with any amount of amateur supervision can ever do. The terms of the transfer should be, in my opinion, a reduction of assessment on the part of Government equivalent to the amount required for the proper maintenance and up-keep of the work—this would be about 25 per cent. in the case of river channels, 18½ per cent. in the case of spring channels, and 12½ per cent. in the case of small tanks,—and on the part of the ryots, an engagement to keep the works in good repair, and to forfeit all claims to future remissions or further reductions. I suppose that the cancelling of puttals held by ryots who failed to repair the works, or who failed to pay up the reduced assessment, would be sufficient to enforce the terms.

Q. 5. Would the ryots, as a general rule, be glad to take over these minor works on a reduced assessment, subject to the contingency of executing future repairs themselves? — I think not.

Q. 6. Would it be necessary to put these minor works into thorough repair before handing them

Q. 12. Would you merely regard the question in a financial point of view, or are the foregoing contingencies worthy of consideration? — The foregoing contingencies are, I think, deserving of the first consideration, but looking at the matter in a financial point of view, the proposed transfer would be of no advantage. Referring again to the précis of correspondence on the subject, and assuming that the reports on which this précis is based, are correct, it appears that the Ayacut Assessment of about 1,000 small tanks, is 250,000 Rupees or 250 Rupees a tank. It is a well known fact, that the assessed ayacut includes land which is practically waste, and utterly unfit for wet or dry cultivation of any sort; I consider that a deduction of 10 per cent. from Ayacut assessment is, on this account, a very moderate deduction, and that an assessment of 225,000 Rupees is the highest Revenue that could be obtained, at present rates and under the most favorable circumstances, for a single crop from works referred to. The average collections from these works at present amount to 150,000 Rupees, and, considering the state of disrepair in which the works are supposed to be, the ridiculously small sum that has been expended on them, and the great and unexplained falling off in the collections in Nellore, South Arcot, Tinnevely and Coimbatore, I do not see that there is much reason to complain of the collections, and I believe it will bear very favourable comparison with the collections from a similar quantity of land more favorably situated.

By abandoning these small tanks, the revised assessment amounts to 175,000 Rupees, or to 75,000 Rupees less than the present assessment; but there is no guarantee that the collections under the proposed system would amount to 175,000 Rupees, and I do not think it will be found just or possible to raise the actual collections to the amount. For, besides the waste land included in the present assessed Ayacut, there is a large proportion of Nunjah land every where, which will grow nothing but rice, and, as rice cannot grow without water, to abandon the tanks would be throwing this land out of cultivation altogether. A further deduction of 10 per cent., in addition to the 10 per cent. for waste, is probably within the deductions that should be made on this account, and 140,000 Rupees would be found much nearer the

actual collections than 175,000 Rupees, the amount expected.

Then we have the present collections, minus the amount expended on repairs, against the expected collections, equal the loss gain to Government equal to $\frac{1,500,000 - 1,000,000}{1,500,000} = 0$ in a direct financial point of view, and without taking into account the value to the people and to the Government of 250 million cubic yards of water.

Q. 13. *How would you reassess the ayacut of any works that might thus be transferred? —* I suppose the simplest plan would be to assess the whole area of the tanks, and their present ayacut as Punjab, but the waste land, and all land unfit for dry cultivation, should be struck out of the account altogether.

Q. 14. *Could water be headed up in sufficient quantity to ensure the production of garden crops, even if nunjai crops could not be raised? —* I think not; where there is a probability of storing sufficient water for garden crops, there would be a probability of storing sufficient water for rice crops, and as the cost of planting the latter is much less than the cost of the former, the ryots would sooner risk a rice than a garden crop.

Q. 15. *Would the ryots dig wells, and so improve the ayacut area permanently, were it granted to them on easy terms? —* I think they would; but it would be necessary to give advances to the poorer ryots to enable them to sink and to work wells for a time.

Q. 16. *Is the ayacut area under small tanks, generally as fit for garden cultivation, as the punjai lands in which the ryots now dig new wells? —* It is not, generally. In the upland districts it is, but in the coast districts it is not.

Q. 17. *Would you allow of cultivation in the beds of the tanks handed over? if so, how would you assess it, and how would you prevent cultivation interfering with heading-up water? —* I would not allow cultivation in the beds of any tanks that are to be kept in repair; much damage is now caused by this bad practice. The cultivators in the beds of tanks cause serious damage very often not only to the tanks but to cultivation below the tanks, by making escapes and breaches to save the cultivation in the beds.

Q. 18. *Are there any tanks in your District which it would be better to breach, and so allow of punjai cultivation in the bed, instead of nunjai cultivation below them? —* There are some, but not many.

Q. 19. *Are there any tanks in your District so silted up, as to have become practically useless? and if so, how would you treat them? —* There are. I would give up the beds and the lands below them for dry, or garden cultivation, and have them struck out of the list of Irrigation works altogether.

Q. 20. *How would you compensate Inamdars and ryots who might suffer loss by any change of the existing system? —* This would be another great difficulty in carrying out the proposed system, and would lead to many exaggerated claims. I do not think that any definite rule can be laid down for the settlement of such claims; generally they should be dealt with, separately as they arise—by compensation in money, or a grant of Government land to be classed as Inam.

Q. 21. *Do the ryots now keep up any tanks which the Government has practically abandoned? —* I have no means of knowing if the numbers of tanks now considered the property of the ryots were at one time the property of Government and were abandoned, but I know that these tanks are in a much worse state of repair generally than Government tanks. This is the case with Zemindary tanks also.

Q. 22. *If so, do you know of any cases in which these tanks have been allowed to go to ruin from neglect on the part of the ryots? —* Yes. The first four tanks given as example in answer to question 9 were allowed to go to ruin; the other tanks entered in the same list of examples are in the Naragunty Paleim Zemindary. The proprietor being now a minor, the Collector has the management of the estate under the Court of Wards. It was the Collector who gave the necessary funds from the proceeds of the estate, and it was at his request that the works were undertaken and carried out by this Department. When I inspected these works at the Collector's request, nothing had been done to them by way of repair for more than fifty years, and, besides those works

which we repaired, there are several others in a most ruinous state.

Q. 23. *Many ruined tanks have, of late years, been made over to the ryots to do what they like with: have such tanks been usually repaired or neglected? — I don't know.*

Q. 24. *Taking all the advantages and disadvantages of retaining or abandoning small tanks into consideration, would you prefer maintaining them as at present, or from any local fund, or would you hand them over to the ryots to maintain? — I would maintain all serviceable or repairable tanks as at present; useless tanks are an incumbrance, and I would destroy them altogether. About 5 per cent. of the tanks in this district are useless.*

Q. 25. *Would it be necessary to legislate on the subject, and what provisions would you suggest for an Act? — I do not think that any further legislation is necessary. If it is decided to give up the tanks, I suppose it would be done in cases only where the people were willing to take them, and for this purpose a special Act does not seem necessary.*

Q. 26. *Do the figures given in your former report on this subject, include all the tanks that in your opinion might be advantageously made over to the ryots? — I have made no previous reports on this subject.*

Replics of Mr. D. Booth, Supervisor in charge of No. 1 or Wallajah Range, North Arcot District, to Circular No. 3.

ABANDONMENT OF SMALL TANKS TO THE RYOTS.

Question 1.—*As an alternative to the maintenance of minor irrigation works, by the commutation or enforcement of Kudi-maramut, or by the imposition of a new irrigation cess what do you think of the transfer to the ryots of a certain class of minor irrigation works? — No Kudi-maramut to commute or enforce in Wallajah; so it can just remain so. An irrigation cess is most necessary. But to transfer any irrigation to the ryots, would be certain loss to Government, destruction of the works and incalculable amount of destitution among all concerned at an early date.*

Q. 2.—*If you are in favour of this, what class of minor irrigation works would you transfer? — I certainly would not make any such transfer at all.*

Q. 3.—*What general limit of area and assessment would you fix on, and what exceptions would you make? — I certainly would not make any such transfer at all.*

Q. 4.—*On what principles, and on what terms would you make the transfer, and how would you ensure the enforcement of the terms? — I would make no such transfer at all, and avoid endeavouring to enforce what would soon appear impossible.*

Q. 5.—*Would the ryots, as a general rule, be glad to take over these minor works on a reduced assessment, subject to the contingency of executing future repairs themselves? — As a general rule the ryots, on a reduced assessment, would take them, but as for executing any thing needful repair themselves, do not expect any such thing. Such irrigation works would be neglected from the day of transfer. The works and ryots would dwindle down together, the former to a barren wilderness, and the latter to object poverty.*

Q. 6.—*Would it be necessary to put these minor works into thorough repair before handing over to the ryots, and what precautions would you adopt for maintaining them in thorough repair? — By all means put every irrigation work in thorough repair. But do not transfer one of them under any consideration.*

Q. 7.—*Would it be necessary to take a written agreement from all the parties interested before any work is made over to them, and how could the provisions of such an agreement be enforced? — It would certainly be an idle waste of time endeavouring to do either.*

Q. 8.—*If all the parties interested do not agree, would you hand over the work to one or more individuals, subject to their distributing water to all the cultivators according to custom, and how would you enforce such an arrangement being acted up to? — I would be sorry ever to see any such arrangements. Partiality and oppression, would be the rule, not the exception until the work was worn out.*

Q. 9.—*Do you think that the ryots would keep up such tanks, or is gradual deterioration and final destruction to be apprehended? — for instance, should breaches occur, would the ryots be likely to close them? — The ryots would not keep up such tanks. Rapid deterioration and final destruction is the certain result.*

Q. 10.—*If so what interests would be endangered by making over the tanks to the ryots, would the supply of drinking water in certain cases be likely to be interfered with or cut off? — Many interests would be endangered. The destruction of the smallest pond is a loss to man and beast in the plains of India, and the barrenner the neighbourhood, the more the loss is felt.*

Q. 12.—Would you merely regard the question in a financial point of view, or are the foregoing contingencies worthy of consideration?—Such a question should not be regarded in a financial point of view.

Q. 14.—Would water be headed up in sufficient quantity to ensure the production of garden crops, even if nunjai crops could not be raised?—Water could be so headed up, but in ordinary seasons nunjai crop can be raised, more especially if all such tanks were put in a good order.

Q. 16.—Is the adjacent area under small tanks, generally as fit for garden cultivation, as the punjai lands in which the ryots now dig new wells?—It is.

Q. 18.—Are there any tanks in your District which it would be better to breach, and so allow of punjai cultivation in the bed instead of nunjai cultivation below them?—I do know of none such.

Q. 20.—How would you compensate Inamdars and Ryots who might suffer loss by any change of the existing system?—I would make no change to cause either any loss whatever.

Q. 22.—If so, do you know of any cases in which these tanks have been allowed to go to
from neglect on the part of the ryots?—I am not aware of any tanks abandoned to the ryots
keep up, but I do know of tanks belonging to ryots, and all such are in utter ruin the
people in beggary.

Q. 24.—Taking all the advantages and disadvantages of retaining or abandoning ^{links} into consideration, would you prefer maintaining them as at present, or from any local ^{link}, or would you hand them over to the ryots to maintain?—I would, on careful consideration, prefer any thing rather than think of handing one of them over to certain destruction.

Q. 26.—Do the figures, given in your former report on this subject, include all the tanks that, in your opinion, might be advantageously made over to the ryots?—In no report do I consider a single tank could be advantageously be made over to the ryots. For such a handing over would be to utter destruction.

MEMBERS PRESENT.

Mr. ROBINSON,
Mr. SIM,
Major SHAW STEWART.

The Honorable T. CLARKE, in the Chair.

Mr. W. F. HATHAWAY, Sub-Collector of the South Arcot District, re-called and examined.

Abandonment of small Tanks to the Ryots.

Question 1, in Circular No. B. As an alternative to the maintenance of minor Irrigation works, by the commutation or enforcement of Kudi-maramut, or by the imposition of a new Irrigation cess, what do you think of the transfer to the ryots of a certain class of minor Irrigation works? — ~~are~~ ^{are} commencing, I think it of ~~primary importance~~ ^{primary importance} to settle the meaning of the phrase itself "give over," as, in my opinion, everything hangs upon that. I thoroughly admit that Government money ought not to be expended on petty tanks, and that they ought to be kept up by the ryots, and left to them; but I think it a profound mistake to jump to the conclusion that they should therefore be given to the ryots as private property. Not only would this create hopeless complications of rights, but it would directly lower the value of the property itself, while the additional labor thrown upon Revenue and Magisterial Officers would be enormous. At present all the Irrigation works, speaking broadly, belong to the same owner, the Government, and are therefore on an equal footing; and those who hold land under them have the same chance of a supply of water. But directly each tank became the private property of a different party, all this would be changed; each would be trying to divert and appropriate whatever water was attainable, emboldened by the knowledge that the Government would no longer take any notice of it, but, as it was a matter of private property, would leave the other claimants to protect their rights by a civil suit. And even if a tank-owner had not so appropriated water, there would still be great likelihood of complaints being made by rivals that he had done so. I speak purely from experience: there are two or three villages in this District where the fancy of private

tanks was taken up warmly, and all got interested in the work; and there is more trouble about the tanks of those villages than from all the rest of the talook put together. Every tiny stream of water that drains from the waste ground after rain is jealously watched and fought for. I have one petition requesting leave to utilize the water in the road ditches. And it cannot be said that this is a state of things that might have been prevented by not allowing so many to construct tanks: they have made them in their own private lands, and pay assessment for the water-spread, and therefore of course could not be interfered with. It is true that most of the complaints and counter-complaints turn out to be false or frivolous; but there is as much trouble in investigating a frivolous complaint as a true one. Again, the property itself would be directly depreciated in value by altering the ownership. Government property is, as a rule, much more respected than private property. There is still a great deal of wholesome respect for everything connected with the rulers of the country, and dread of incurring the displeasure of those in power. But with private property there is nothing of the sort, but, as a general rule, a supreme disregard for the rights of others. When once it were known therefore that the Government had abandoned all right and interest in small tanks on any large scale, and no longer had them under its protection, the encroachments, which even now it is difficult to repress entirely, would break out unchecked. Water would be diverted, tank beds cultivated, and bunds injured in every direction. The three or four ryots who might cultivate the few acres of paddy under the tank, would of course take care of it; but any other villager would not respect it, and would do what he liked. Supposing that a ryot took off water from a private tank, without leave, to his punjah land, what could be done? The tank-owners might assault him, or sue him, but that is all. At present we can keep it down to some extent by putting on a heavy water cess of 5 Rupees an acre in addition to the punjah assessment, though even with this power it is with difficulty repressed; but the tank-owners could not even do this,*

* As I scarcely suppose that it is intended to extend the Rent Recovery Act, and make them "proprietors," in virtue of their property in the water, who would be able to grant put-tabs, and attach property for non-payment of arrears of water cess.

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and the trespasser would get his water year by year, subject only to the remote liability of a beating, or a civil suit. A criminal prosecution would be quite out of the question. Even now, with the strong efforts that there are to prevent it, and the deterrent effect of this water-tax, the unauthorized cultivation of punjah crops on punjah ground amounts to hundreds of acres; so that a criminal trial for each individual could not be thought of, to say nothing of the inherent difficulties of proof. Again, at present, the village officers being Government servants, feel bound to give truthful evidence about injury of this sort to Government property; but with private property this is not the case: private interests come in and personal feelings, and even if Government officers did their best to stop such encroachments, they never could arrive at the truth of a case. I therefore am entirely in favour of "giving over" minor Irrigation works under certain conditions and in certain localities, in the sense of leaving them to be repaired in consideration of a redemption; but I am not in favour of this general "giving over," if the term is intended to mean a legal conveyance of the property from Government to private parties. I cannot see any necessary cause for this, and I believe that, for the reasons given above, so far from it being more valuable when so granted, it will be actually depreciated. Again, besides all this, there is the consideration of how greatly it might hamper the action of the Engineer Department. At present everything belongs to one owner, and the Government can carry out what schemes they like, as absolutely as a gentleman in his own estate, who fills up one pond or digs another at his pleasure. But with a legal conveyance of every pond to a private party, and hundreds of conflicting rights, all this would be altered, and good irrigation schemes might be delayed or obstructed by one litigious ryot or another declaring that it affected, or had a possibility of affecting, some petty pond, which, after all, the Government itself had originally given him. I therefore strongly deprecate the insertion of any such term as could give a Civil Court the impression that any conveyance of property had been effected. For after all, there is no necessity for this; the ryots are by no means averse to doing work to a Government tank, and I can point to many instances where they have done it willingly, and probably would feel that

their work was more safely expended on it, than if there were a possibility of it being appropriated by some private individual. For, in the case of a tank being held by joint-owners, what is to happen on the death of one? Is there to be the *jus accrescendi*, by which his right would go to the survivors, or, on the contrary, would it descend to his sons? After various lapses of this kind, who would be the body corporate to sue and be sued as the owners? Could an interested party sell his own right, or raise money on it as a security by any conveyance short of sale? Or again, would the right be attached to the land itself, and pass with it? I am afraid that after fifty years such property would begin hopeless entanglement, and valueless until it could be re-converted into Government property by the theory of lapse. Of course if in any part ryots were of a nature not to quarrel about these things, the absolute grant might be made, but, as a general rule, the natives of Southern India are not of such a character. I therefore premise that by "giving over," I merely mean "leaving for the purpose of repair," and that the tanks remain as much the property of Government as ever. If this be not conceded, I should answer most of the questions in a totally different manner.

On cross examination. (I.) Why do you think that Government money "ought" not be spent on small tanks? — By "ought" I mean that as these tanks are small and very numerous, it would be a matter of convenience to Government to entrust to the ryots the money set aside for repair, instead of having it expended by the costly and elaborate machinery of the Public Works Department.

(II.) Are you personally acquainted with any such tanks of less than fifteen acres ayacut? — Yes, I am.

(III.) Has Government money been expended on such tanks? — Not as a general rule. The small amount of money that has been allotted annually has usually been reserved for more important tanks.

(IV.) What is the nature of the repairs required for such tanks? — Generally masonry work to sluices and calingulas. In some cases earth work would be necessary; but, generally speaking, it is the sluice which is in bad order. But

although earth work is not actually required, yet I think that if they were given to the ryots in this way, earth work would often be done, and the tank would be improved and enlarged in this way by an extension of the bund.

(V.) How often do such tanks require to be filled in order to ensure a crop? — This depends very much on the configuration of the ground. Where there is a good declivity or valley, the tank is deep, though small; and in such a case, a single filling will ensure a crop: but in most of the South Arcot Districts the country is very level, and such tanks are therefore extremely shallow, and require a continuance of rain, so as to fill them four or five times. The soil, however, is of a nature that retains a great deal of moisture, and thus, in a fair season, inferior rice will often grow with little or no irrigation, almost in the same way as a dry crop; and thus the proximity of a pond, and occasional irrigation, will often ensure a crop on eight or ten acres, when the quantity of water in the pond would be insufficient for even a single acre of gravelly or sandy soil.

(VI.) Taking the average of the past five years, do you think that the average remission made on the land under these small tanks would exceed, equal, or fall short of the permanent reduction of one-third that you propose to make? — Taking these five years together, I think that the remissions would have exceeded the one-third that I propose to set aside for repairs. But that is because these two last years have been peculiarly bad, and nearly the whole crop has failed, and thus almost the whole of the assessment has been remitted. Excluding these two last exceptional years, the average annual remission certainly would not be so much as this one-third. Probably, the actual loss of the cultivator in such previous years may have very nearly come up to a third, but usually, from the general good character of the season, remission to this extent was not necessary, and was not given. In some years, where a crop has had water for some time, but has ultimately failed, partial not full remission has been given. Complete waste, however, has in every instance had full remission in such years as the two last.

(VII.) In these two two last exceptional years, has remission under small tanks been more general than under large ones? — Yes, because when

there is a small quantity of water in a large tank, it may be sufficient for a crop on a small quantity of land; but a proportionately small supply in a small tank is of no use whatever, so far as nunjah cultivation is concerned. It might however be made use of for garden cultivation, as this is a much more economical way of using the water. But as there are no rules which encourage it, nunjah cultivation is always attempted instead, even when the supply of water is manifestly insufficient; and hence, as a general rule, the smaller the tank, the greater the chance of failure of crop under it.

(VIII.) *If the tanks were repaired as you propose, would you continue to make the ordinary remissions for waste and failure of crop in unfavourable seasons?* — Certainly; because the landholders under these tanks are usually too poor to stand the loss of their whole crop in a bad year, and there is not sufficient permanency of holding by the same individual for the losses of one year to be counterbalanced by the gains of another. It would, therefore, be necessary to reduce the assessment to a low punjah rate in order to refuse remission in bad years, and even this would probably be more unpopular than the present system.

(IX.) *Do you think that with rising prices, and the steadily advancing value of land, a stationary reduction, as you propose, will not be a serious and uncalled-for sacrifice?* — I think that if the Government made these repairs, as they seem bound to do, they would cost as much as, if not more than, what I propose, owing to the costliness of the labor of highly-paid officers in estimate and plan-drawing and superintendence of accounts. If this very expensive paper-work could be got rid of, the repairs might be done by the Public Works Department, probably at a less cost than what I have allowed. I put it high to make up to some extent for the neglect of past years, and to make it worth the while of the ryots to make actual improvements.

(X.) *Do you think that if the Collector and Tahsildar had a fund to give out when required to the villagers, and have the work done off-hand, better results would be produced than by leaving the work to the uncertainties connected with the system you propose?* — I do not think that there would be any guarantee for such disbursements being

properly expended, nor sufficient provision against speculation. If any check could be devised that cost comparatively little time and money, such system would probably be preferable to leaving the money with the ryots. I think that the plan would be more likely to succeed if the Collector carried it out by means of the Public Works Department under him, than if he attempted it himself by means of his Revenue subordinates. I am inclined to think that if there were a simpler procedure in the Public Works Department than at present for such petty expenditure, it would be more satisfactory for the work to be entrusted to them than to the ryots as I have proposed.

(XI.) *Would not the people have great difficulty in collecting amongst themselves the amount required, when large expenditure was necessary on a work?* — As a general rule, I think that they would not contribute money, but labor, and thus execute the work themselves. Thus, even for masonry work, they could do a great deal in making bricks and collecting lime. Where these could not be procured on the spot, they might be obliged to buy them, but I look upon such as exceptional cases: and whenever they could not do the work, they of course would be at liberty to represent this to the Divisional Officer, who thus might collect from them this one-third, and endeavour to expend it for them.

(XII.) *Do you think that leaving small annual sums in the hands of private individuals, which are liable to become mixed up with personal expenditure, the best way of securing a proper expenditure on a public tank?* *Has the merai system ever succeeded to your knowledge?* — I do not know that it has ever been found to be unsuccessful, or that the merai system, which this merely resembles, was put an end to because actually impracticable. If however there were difficulties about it, I think that they would be at once removed by the additional provision, that I suggest, of the Collector only allowing the reduction in those years where the necessary work had really been done. I look upon this as a perfect safe-guard.

But so far as the plan for the grant of ruined tanks at a reduced rate is analogous, the majority of cases in which I have tried it, have proved perfectly successful. That system is nothing more than granting tanks which are in much worse or-

der, at a much greater reduction, viz., of somewhat more than half the paimaish assessment. Again, the leave to construct wells, or small ayacuts over jungle streams, without any increase over the punjah rates, may be looked upon as a reduction of three-fourths the nunjah assessment: and this has proved eminently successful in some districts. Thus, by putting these together, we find that when a tank does not exist at all, three-fourths of the nunjah assessment is remitted, as an inducement for its construction: when only part of the work remains and it is in very bad order, half the nunjah assessment is remitted: and when it exists, but is in inferior order, I propose that one-third the nunjah assessment should be remitted. It is true that one-fourth would be more symmetrical, but I have proposed the larger fraction, because, (*first*) I hope that the tanks will not only be repaired, but will further be even improved, and (*second*), there will be more trouble for such work to be done by joint labor, than in the other cases where the whole work belongs to one party. With regard to the Daswandam system, the chief instances that I am acquainted with, are those where the Inam was granted for the construction of the tank in the first instance, and such cases I look upon as eminently successful, as the Government has obtained a valuable tank at the comparatively cheap price of a small piece of land. The system, however, does not succeed with regard to subsequent repairs, chiefly, I think, on account of the invariable tendency of such Inam lands to become in process of time appropriated by persons who have no right in them, and consequent depreciation of their value by litigation and faultiness of title. With Ryotwari lands and an annual settlement, little of this sort occurs.

(XIII.) *Was the morai allowance ever as much as one-third? —* Never. I have no wish to insist on that particular fraction, and merely named it as an amount that would make it worth the ryot's while to close with the offer.

(XIV.) *Are not the disputes that you have mentioned rather cases of water disputes that would come under the cognizance neither of Revenue nor Magisterial Officers? And would such cases necessarily occur with tanks which are now worked under certain known rules and regulations? —* They are probably cases such as should not be taken

up, except by Civil Courts: but the disputants would probably endeavour to represent them in such light as to induce a Magistrate to act. Much of the power by which at present the known rules and regulations are upheld, would be gone, if this were converted into private property, as the Collector would no longer have the power of dealing with cases of usurpation at Jamabandy.

Again, I have sometimes found the leading ryot in a case of unlawful trespass on water to be a monegar or head of the village: and I have been able to put a stop to the unlawful usurpation by the threat of dismissal, suspension, or fine: but if all the small tanks throughout the whole country were converted into private property, such complaints of trespass would probably become so numerous that I could scarcely cope with them all, and should be obliged to leave them to a Civil Court.

(XV.) *Would not the offence of the head of the village be as grave and as deserving of punishment in the one as in the other? —* Yes: but there is a Circular of the Board of Revenue ordering Revenue Officers to endeavour to prevent encroachment on public property, which is not the case with private property. And further, with a private tank the trespasser would probably allege a right of his own, on account of a contract with the owner; so that it would turn into a case of easement, that could only be settled by a Civil Court: whereas with a tank that belongs to Government, I am myself agent for the owner, and my own records will tell me whether it is true that there has been such a grant, as alleged, or not.

(XVI.) *Does the disregard of private rights that you allude to, extend to other property besides water? —* Yes; I think that, *ceteris paribus*, Government property is always more respected than private property.

(XVII.) *When tanks have been made over, has there been much increase of litigation? —* The generality of ruined tanks that have been given at the 2½ Rupees rate have been in a jungly and thinly populated country; but I think that if the existing Government tanks in populous villages were made over to a few individuals, there would at once be a large crop of disputes about them.

Q. 2. *If you are in favour of this, what class of minor irrigation works would you transfer?*

— I would transfer, in the sense of leaving to the ryots to repair, all such small tanks as the Collector* thought fit.

Q. 3. *What general limit of area and assessment would you fix on, and what exceptions would you make?* — I would, as a general rule, look upon fifteen acres ayakat as the limit below which small tanks should be thus transferred to the ryots; but I would give the Collector discretionary power to go above that in special cases when he thought fit. If it were successful, as I expect it would be, it would be extended to twenty or twenty-five acres. All tanks, however, that in any way were connected with larger Irrigation works, should be reserved, and not granted on this favourable tenure; and, generally, a Collector should have power to transfer a tank from one class to the other. By "ayakat" I mean the present capability of the tank, not the mere extent that is entered in the paimaish accounts.

On cross examination. (1.) Does the ayakat generally represent the actual capability of the tank? — It never is very accurate. In South Arcot it is a tolerably correct approximation; but in some places I have known cases where the paimaish entry was ridiculously large, and seemed to have been based, not on any cultivation that ever was made to that extent, but on what might possibly be required afterwards, and to have taken in a large amount of immemorial waste land, so as to allow of the extension of Irrigation if required. In those Districts where the ayakat is generally correct, any great difference would raise the presumption of the tank having deteriorated since the paimaish.

Q. 4. *On what principles, and on what terms would you make the transfer, and how would you ensure the enforcement of the terms?* — The transfer would be made in consideration of a reduced rate of assessment, say, about two-thirds the present rate, or ranging from about 2½ to about 4 Rupees an acre. If in any year it was found that the tank was in bad order, or not repaired, the terms would be enforced by simply re-imposing the old rate, or, if necessary, a higher

* The word is used throughout as including Divisional Officers, with powers of a Collector.

rate, till it was repaired; and the Collector would give the order at Jamabandi.

On cross examination. (I.) Do you think that if the small tanks were given to the ryots without any reservation, it would generally be an acceptable measure? — I do not think that the people would at all care whether the tanks were given away without reservation, or still remain the property of Government, and were only given for repair, nor that they would see much difference. If they were given without any reservation or check, I think that there would be a steady process of deterioration; but, as this would be gradual, it would not force itself so strongly upon the minds of the cultivators, as to stimulate them to immediate and energetic action.

(II.) When you gave away tanks in the Salem District, did the owners in any case charge water cess, and have there been any complaints about such cases? — In some cases, where none of the holders of the punjah land under a breached tank cared to repair it, leave was given to some other applicant, and then he said that if he rebuilt the tank, some of the land under it ought to be given him. I replied that I could not take it from others who held it; that as he had the water, and they had the land, he need not let them have any water unless they complied with his terms. In some cases of this sort, therefore, the builder of a tank grumbled, because, he thought he ought to have some of the land given him; and the ryots grumbled when he tried to take it away to distant land of his own, instead of letting them have it; but there were no other complaints that I remember. I do not know what terms were come to in these cases, or whether ultimately the holders of the land agreed to pay water tax. This, however, would, of course, be a totally different thing, when the land they held had been punjah from time immemorial, to what it would be now if existing tanks were given away, and present punjah were liable to be injured by others taking away the water to land not entitled to it, and after all not paying the water rate.

(III.) Would the reduction that you propose be on the whole ayakat or on the land cultivated? — It would be on the land actually held each year, and would be a reduction of each rate of assessment per acre.

(IV.) *What do you mean by a higher rate?*

— For extreme cases, where the ryots had not fulfilled their contract in doing repairs required, I would have the power to impose an additional one-third of the assessment, in order to meet any actual damage that had occurred by such neglect. But, I do not think that such cases would often occur, for each tank would generally be seen by the Revenue Inspector some time during the year, when he visited the village for the purpose of disposing of *darkhasts*, or of inspecting loss of crops before Jamabandi; and such occasional inspection would at once bring to light any case where work required had not been done; and then, as a matter of course, the reduced assessment would not be allowed that year. If thought preferable, the scheme may be worded in a different way, viz., that the reduction should only be made in those years in which actual repair had been done, so that the burden of proof would lie upon the ryots, and they would be obliged to show that they had done repair, in order to entitle themselves to the reduction at Jamabandi. Under this plan they would court enquiry, rather than the reverse.

(V.) *Would it do to make a remission annually equal to the average previous expenditure, or more, if shown to be fairly due by Government, in favour of certain tanks, in case a certificate were produced at Jamabandi to the effect that repairs had been executed that year?* — That is precisely what I propose. If the ryots agreed to the arrangement, they would have the reduction in a year when they had fulfilled the terms, and would not have it when they had not. I would take the assessment as a standard, and not the particular amount that the Government had previously spent, for this reason, that a tank which had been largely repaired by Government would otherwise get a larger allowance than one that had not been repaired, while again it would not be so much required, and *vice versa*.

(VI.) *By whom ought such a certificate to be given so as to be a document that could be relied on by the Collector?* — The Revenue Inspectors are the proper persons to give the information. Each has about one-fourth of the talook, and his duty is to live in his charge, and make a circuit of the whole, so as to visit every village once, if not twice, in the year. He thus settles in each village all the appli-

cations for land and disputes about cultivation, remarks on the state of the crops and notices if there has been any loss, sees that the Karnam has got his accounts in good order, and finally comes up with all the Karnams of his charge for Jamabandi. If this plan were introduced, there would be no difficulty in his noting down whether the tank were in good order, and on his so reporting at Jamabandi, the reduction would be allowed for that year, but not otherwise. It is the same as the supervision of any work: if it is done, the bill is passed, but not otherwise. Considering that remissions to the extent of twenty or thirty thousand rupees are allowed on the report of a Revenue Inspector, he might fairly be trusted to pass a few petty tanks of this kind. The attempt to devise some scheme that will not require supervision, I consider unnecessary, for, in any case, the Revenue Inspector is bound to visit each village in his range during the year, and when he is there, he might as well look at the tank. So far therefore from getting rid of supervision, I am always glad of any thing that will ensure his doing this, which is in fact all the work that he has to do; and when a petition comes that requires report, instead of sending it to the Tahsildar, who is overburdened with business, I invariably send it with an endorsement by the petitioner himself direct to the Revenue Inspector, so as to make sure that he is in his range performing his circuit of inspection.

(VI.) *It appears from returns before the Board, that the expenditure on the small tanks of the Presidency has been but 4½ per cent., (excluding Krishna, Nellore and Tanjore.) Under such circumstances, do you consider that any large sacrifice of revenue is needed to secure the maintenance of these tanks at all events in their present condition?* — No; I do not think that any large amount of the revenue that they now produce ought to be sacrificed. But I do not look upon the money spent as the sole measure of cost, but I add in the expense of costly paper work. Thus, the preparation of an estimate and plan takes up a day of the range officer's time, for, as he has not a sufficient establishment, he is obliged to do a great deal of this work himself. This at 500 Rs. a month is 17 Rs. a day; for a talook overseer on 90 Rs. a month to journey to the village and measure is 3 Rs., and another day would be necessary to inspect it when done: so that every such esti-

mate must be considered as including a cost of about 23 Rs., exclusive of the money paid down. It is for this reason that I am in favor of some plan by which petty work can be done without costly paper work.

(VII.) *What sums are expended in your Division on such minor tanks? —* Very little is ever spent. As a general rule they are entirely left to themselves. Work might be done perhaps to one out of twenty, as an exceptional case, and such work would produce an average expenditure on all the rest to the amount of about 2 per cent. of the whole assessment.

(VIII.) *If no sums have been expended, what sums do you think would be required to keep them in order? —* Half the assessment of the irrigated land every ten years would keep them in excellent order, which gives an annual average of 5 per cent.

(IX.) *Is the revenue under such minor tanks precarious? —* It is on the whole more precarious than that of large tanks, but there is no excessive difference between the two; that is to say, it is only precarious in bad seasons; when there is a fair supply of rain, it is as secure as that of larger tanks.

(X.) *Is it rendered more so by not keeping these tanks in order? —* Undoubtedly.

(XI.) *Can you state how many minor tanks in your Division require to be put in order; what sum would be needed, and what proportion this would bear to the revenue realized on them during the last 60 years? —* I cannot speak from memory with any certainty. My impression is, that since, as a rule, no money has been spent on such tanks for twenty or thirty years, they all require repair, which would average about a year's assessment of all the land cultivated. I think that this amount should be considered due every 20 years.

(XII.) *Can you safely argue from a general average, based on the condition of these tanks in the several Districts of the Presidency, to the condition of them in your own Division, or the way of dealing with them? —* I think it far sounder and more advisable not to attempt to generalise in this way, but to settle the matter in each District, according to the actual state of the tanks. Besides the difference in the expenditure in different Districts, there are other cir-

cumstances, such as the character of the soil, and consequent variation in the amount of water required, configuration of ground and consequent variation in the filling power of tanks, number of wells and consequent independence of the people of the single small tank of the village, &c., &c. A small tank in one District has not the slightest resemblance to one in another District, where all these concomitant circumstances differ.

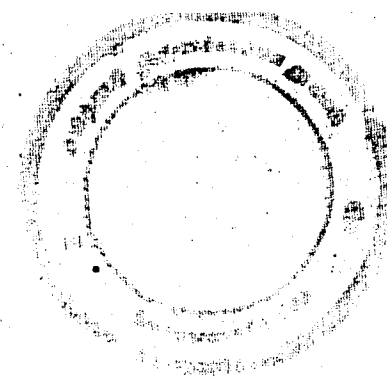
Q. 5. *Would the ryots, as a general rule, be glad to take over these minor works on a reduced assessment, subject to the contingency of executing future repairs themselves? —* I think that the ryots would be very glad to repair their tanks on these terms; if not, we can devise some others.

Q. 6. *Would it be necessary to put these minor works into thorough repair, before handing them over to the ryots; and what precautions would you adopt for maintaining them in thorough repair? —* It would be quite unnecessary to put the works into thorough repair, so long as they were in fair order. If any tank were very badly injured, the ryots might have the land the first year for nothing, so as to cover the expenses of the first repairing. In a few cases it might be advisable for the Engineer Department to do brick work to a sluice or calingula, but not as a general rule. The reimposition of the old assessment, or a heavier one, would be a sufficient precaution to keep them in proper repair.

Q. 7. *Would it be necessary to take a written agreement from all the parties interested, before any work is made over to them; and how could the provisions of such an agreement be enforced? —* No written agreement is necessary, and it would be difficult to enforce one judicially if it were made.

Q. 8. *If all the parties interested do not agree, would you hand over the work to one or more individuals, subject to their distributing water to all the cultivators according to custom; and how would you enforce such an arrangement being acted up to? —* No; a tank should not be handed over unless all agreed.

Q. 9. *Do you think that the ryots would keep up such tanks, or is gradual deterioration and final destruction to be apprehended? —* for instance, should breaches occur, would the ryots be



likely to close them? — The tanks would probably be kept up very well. Small tanks of this sort very seldom breach.

Q. 10. *If so, what interests would be endangered by making over the tanks to the ryots? Would the supply of drinking water, in certain cases, be likely to be interfered with, or cut off?* — As said before, giving over merely means giving over for repair; in other words, commuting a certain per-centage of the assessment for the labor required, and is merely a way of Government getting its tanks repaired, instead of by cash payments either to hired laborers or to a permanent establishment. The supply of drinking water would not be affected by the mode of payment.

Q. 11. *Would it be safe to give up small tanks in jungly parts of the country, where there are but few wells, and perhaps no flowing water?* — All tanks and ponds that have been reserved for drinking water hitherto, and from which irrigation has not been allowed, should be reserved, and not transferred.

Q. 12. *Would you merely regard the question in a financial point of view, or are the foregoing contingencies worthy of consideration?* — There, of course, are other points to be considered, besides the mere financial result.

Q. 13. *How would you re-assess the ayacut of any works that might thus be transferred?* — By remitting one-third of the assessment, or thereabouts, so as to bring it, as a general rule, between $2\frac{1}{2}$ and 4 Rupees an acre.

Q. 14. *Could water be headed up in sufficient quantity to ensure the production of garden crops, even if punjah crops could not be raised?* — In very many places it would be a general benefit to all if garden cultivation were practised instead of punjah, and the water, instead of being all drained off in six months, were made to last the whole year round; but there is no way of enforcing this at present. As punjah cultivation is more profitable, a ryot who gets water takes a profusion, and when one does it, the others do the same. They never can be got to agree all to restrict themselves, but each takes as much as he can. If they all would do it, it often would be a far more lucrative way of applying the water, and a benefit to the whole village.

Q. 15. *Would the ryots dig wells, and so improve the ayacut area permanently, were it granted to them on easy terms?* — It would scarcely be worth while to dig wells under a small tank of eight or nine acres; they are usually confined to larger tanks, where the holding is more valuable. But it depends chiefly on the nature of the soil and the supply of water. A slight decrease of assessment would have no effect in producing wells.

Q. 16. *Is the ayacut area under small tanks, generally as fit for garden cultivation, as the punjah lands in which the ryots now dig new wells?* — It entirely depends on the soil. As a general rule, a firm gravelly soil is the best for wells, as (1) they do not then require to be faced, and (2) the water percolates easily. Such gravelly soil is more often found in upland punjah ground than in low-lying ground under tanks, where the surface to some depth is generally soft earth, and large wells therefore cannot be constructed, except at a heavy cost of facing. This is the rule stated broadly, but it varies very much in different parts of India. Granted the well, tank ayakat is as good as any other for garden cultivation.

Q. 17. *Would you allow of cultivation in the beds of the tanks handed over? if so, how would you assess it, and how would you prevent cultivation interfering with heading up water?* — Most decidedly no cultivation in the beds of such tanks should be allowed.

Q. 18. *Are there any tanks in your District which it would be better to breach, and so allow of punjah cultivation in the bed, instead of punjah cultivation below them?* — No; it is better, on the whole, to keep even the bad tanks than to give them up for punjah, as they all help towards restraining the water and retaining moisture, (as well as affording excellent pasturage) even though, as far as mere figures go, the punjah cultivation might seem to give a better return.

Q. 19. *Are there any tanks in your District so silted up, as to have become practically useless, and if so, how would you treat them?* — Yes, there are many tanks so silted up. Something might be done by re-excavating some of the best; but most are too far gone for that, and nothing can be done with them, except any that the villagers like to take in hand. While on the subject, however, I may mention that it would be very advisable to check the silting process, in

good tanks, by occasional removal of the earth. In this Sub-Division, none of the tank bunds have any revetment or stone-facing, but are simply banks of black cotton soil, and rain gradually washes them down into the tank bed. The remedy of this, of course, is, when a bund is being repaired, to dig out the earth that has washed down, and replace it on the bund. But there is an old rule in the Public Works Department forbidding this, and requiring that earth for a bund shall always be brought from elsewhere. This rule is based on the supposition that the soil in the tank bed is soft earth, or black cotton soil, while that by the side might be good red earth or gravel, which is firmer for a bund; and in many places this would be the case. But in this Sub-Division it is *all* cotton soil, and the earth in the tank bed is every bit the same as that below the bund; but from there being this inflexible rule, a bund gets washed down into the tank bed in this way, and then to repair it, fresh earth from the paddy-fields below is dug, and piled on the top, which again in its turn gets washed down, and so on till the tank becomes filled up. Of course the silting-up process would always be going on to some extent from earth being brought down from above, but still if earth required for a bund were always taken from the bed, it would counteract this to some extent, and lengthen the process of deterioration; whereas, at present, every repair adds so much fresh earth to gradual accumulation, to say nothing of the land below, which is made useless by pits being dug in it.

Q. 20. *How would you compensate Inamdars and ryots who might suffer loss by any change of the existing system?* — I see no loss that could result. If there was an Inam under a tank, and the Inamdar thought that the repairs would not be so well done by the ryots as by Government, and that his Inam would be depreciated, it would be in his power to stop the transfer by his veto. Or even if it had been transferred, he might any year move the Collector to have the tank inspected, and the high penal rate imposed for negligence, and as he was an Inamdar it would not touch him.

Q. 21. *Do the ryots now keep up any tanks which the Government has practically abandoned?* — Yes; I know of a few cases where the ryots were at once willing to do work when told that they might, and that the Government was

not going to do any thing. I believe it would be more generally done, if it were understood that it was expected that they should do it, and that there was no chance of Government money being laid out.

Q. 22. *If so, do you know of any cases in which these tanks have been allowed to go to ruin from neglect on the part of the ryots?* — The question is not quite clear. There are of course other Government tanks which the ryots are too apathetic to repair.

Q. 23. *Many ruined tanks have of late years been made over to the ryots to do what they like with: have such tanks been usually repaired or neglected?* — There are not many ruined tanks in this District. In Salem, I gave away more than 100, and in a large number of cases, when I visited them the second time, I found the bund well built, and the tank in excellent order; but in many other cases they gave a *razinama* after a year or two, and said they could not manage the work. It was then open to others, as in some cases there were three or four applicants.

Q. 24. *Taking all the advantages and disadvantages of retaining or abandoning small tanks into consideration, would you prefer maintaining them as at present, or from any local fund, or would you hand them over to the ryots to maintain?* — I would decidedly hand them over.

Q. 25. *Would it be necessary to legislate on the subject, and what provisions would you suggest for an Act?* — No legislation is necessary for my proposal.

Q. 26. *Do the figures given in your former report on this subject, include all the tanks that in your opinion might be advantageously made over to the ryots?* — I will look through the previous list and report. In conclusion, I will merely observe that a mere lowering the assessment is of no use. It might be reduced to a *punjah* rate without any result. There must be both the penalty and the profit, and this, not by any arrangement once for all, but year by year, so as to have a direct hold on all the ryots treated with, and keep them up to their work; that is to say, they should never be free from the full rate till the *Jama-bandi* at the end of the year, so that the Collector would, at any time till then, have ample oppor-

tunity for discovering neglect and meeting it. My principle then is, simply to discover what is to be the average annual expenditure, and, instead of paying it to coolies for doing the earth-work, to pay it to the ryots themselves; for, as they have opportunities for doing the work, and an interest in it, it would be a commutation on the most favorable terms. Any year in which they had broken the terms of the arrangement, and not supplied the labor, they naturally would not have the money for which it was commuted, and, if necessary, an additional rise in the assessment would be made for covering expense caused by their negligence and non-observance of the conditions. The objection that can be made to the scheme is, that, like every other reform, it will entail somewhat additional work on the Collector. But I think that this is unavoidable, and that, whatever the plan, it would be absolutely necessary that it should be under his superintendence. And, as he is the chief Revenue Officer of the District, it seems that this is peculiarly fitting, and that such things have a special claim to his attention. Other miscellaneous topics have engrossed the time and notice of Revenue Officers of late years, Registration Offices, Vaccination, Municipalities, Roads, Dispensaries, &c., and these things, which relate to *Revenue proper*, have been lost sight of.

Precis of replies by Mr. W. F. Hathaway, Sub-Collector of the South Arcot District, to Circular No. 3.

ABANDONMENT OF SMALL TANKS TO
THE RYOTS.

Mr. W. F. Hathaway thinks that with a two-fold classification all the small tanks might be repaired by the ryots in consideration of a certain reduction in their assessment, which would be made each year when they had done substantial work; but that there is no necessity to "transfer" these smaller tanks, in the sense of turning them into private property, and making a legal conveyance of them by the State to private individuals. He thinks that if that were done on any large scale throughout the whole country, it would produce a large amount of litigation, dispute, and bad feeling, without any counter-balancing advantage: that there would be no guarantee for the ryots keeping up the tanks, and that thus existing rights might be most unfairly affected. He considers that as these petty tanks do not produce any very large Revenue, there are other considerations, which are of more importance than the mere pecuniary result, and that all these point to serious evils which might ensue from such tanks being made private property; while on the other hand an arrangement could be made just as easily for the work being done by the ryots, as is often the case now with village ponds, which are kept up by the village community, and yet are always recognised as belonging to Government. He thinks that all the ryots would prefer this as the only safe-guard against private encroachment and usurpation.

Tuesday, 16th March 1869.

MEMBERS PRESENT.

The Hon'ble T. CLARKE.	Mr. ROBINSON.
Captain MULLINS.	„ SIM.
Mr. PUCKLE.	Major SHAW STEWART.
The Hon'ble V. RAMAYENGAR.	

The Hon'ble T. CLARKE, in the Chair.

Mr. G. LEE MORRIS, Collector of Tanjore, re-called and examined.

Abandonment of small Tanks to the Ryots.

Question 1 in Circular No. 3.—As an alternative to the maintenance of minor irrigation works, by the commutation or enforcement of kudi-maramut; or by the imposition of a new irrigation cess, what do you think of the transfer to the Ryots of a certain class of minor irrigation works? —
I think it might be expedient under certain circumstances.

Q. 2. If you are in favor of this, what class of minor irrigation works would you transfer? —
All rainfed tanks, the improvement or keeping up of which would entail so much expense or trouble on Government as to render it not worth while to retain them as Government works, and the ayacut under which had only been cultivated to a small extent.

Q. 3. What general limit of area and assessment would you fix on, and what exceptions would you make? —
I would not fix any general limit of area or assessment, but would transfer only such tanks as I have mentioned; they are generally small ones.

Q. 4. On what principles and on what terms would you make the transfer, and how would you ensure the enforcement of the terms? —
The terms on which I would make the transfer, are, that the ryots should keep the tank in repair, and pay the assessment at the punjai rate for a

defined extent of irrigable area, whether the whole of it was cultivated or not, and also whether it was cultivated with wet or dry crops. In fixing the irrigable ayacut, and also the rate of assessment, I would deal with each case according to its individual circumstances, keeping in view the only condition that the measure shall not involve any considerable sacrifice of present actual revenue. As to the enforcement of the said terms, I see no need for enforcing the up-keep of the tanks by the ryots, inasmuch as whether the tanks are actually kept in repair or not, is a matter in which, according to the arrangement I have proposed, the Government will then have no concern, and they can realize their own demands under the law in force for the recovery of arrears of revenue.

On cross-examination. (I.) Would you give up the maintenance of these small tanks irrespective of the ayacut area cultivated beneath them? — No, I would not. If the ayacut was fully cultivated, I would look upon the tanks as a necessity, and would not give it up; but if the ayacut area was only partly cultivated, I would make over to the ryots the whole of the Ayacut for the sum which has been hitherto collected from them for cultivating a part.

(II.) There seems to be some doubt whether the people could combine sufficiently to keep these tanks in proper order, after taking them over. How would you meet this? — I would propose that the act for enforcing kudi-maramut should be extended to these tanks, and then there would be no difficulty in getting the tank repaired when necessary. It only wants a little pressure on the part of the Revenue authorities, and the people will combine and work together readily enough.

(III.) Explain what you mean by Kudi-maramut in the foregoing answer? — The joint labour of the Merasidars, free of all charge to Government, in works in which they are interested, and which works are to be specified for each village; the labor being enforced by the Revenue officers when necessary according to an act to be hereafter passed.

Q. 5. Would the ryots, as a general rule, be glad to take over these minor works on a reduced assessment, subject to the contingency of execut-

ing future repairs themselves? — I think they would be.

Q. 6. Would it be necessary to put these minor works into thorough repair, before handing them over to the ryots; and what precautions would you adopt for maintaining them in thorough repair? — I do not think that it is necessary.

Q. 7. Would it be necessary to take a written agreement from all the parties interested, before any work is made over to them; and how could the provisions of such an agreement be enforced? — I think it would be. As to enforcing the provisions of the agreement, Vide answer to question 4.

Q. 8. If all the parties interested do not agree, would you hand over the work to one or more individuals, subject to their distributing water to all the cultivators according to custom; and how would you enforce such an arrangement being acted up to? — If a large majority of those interested did not agree, I would not hand over the tank at all, but would let matters stand as they are now.

Q. 9. Do you think that the ryots would keep up such tanks, or is gradual deterioration and final destruction to be apprehended? for instance, should breaches occur, would the ryots be likely to close them? — I think they would generally keep them up, seeing that it is a matter of their own concern, and must affect their own interests.

Q. 10. If so, what interests would be endangered by making over the tanks to the ryots? Would the supply of drinking water, in certain cases, be likely to be interfered with, or cut off? — I do not think that any interests would be thereby endangered. The supply of water for drinking purposes will in no way be interfered or cut off.

Q. 11. Would it be safe to give up small tanks in jungly parts of the country, where there are but few wells, and perhaps no flowing water? — There are no such localities in this District.

Q. 12. Would you merely regard the question in a financial point of view, or are the foregoing contingencies worthy of consideration? — I would regard the question in a financial point of view, and also as one affecting the welfare of the general body of the ryots. I do not think the

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contingencies above indicated are possible at least in this District.

Q. 13. *How would you reassess the ayacut of any works that might thus be transferred? —* Vide answer to question 3.

Q. 14. *Could water be headed up in sufficient quantity to ensure the production of garden crops, even if nunjai crops could not be raised? —* I doubt whether it could be.

Q. 15. *Would the ryots dig wells, and so improve the ayacut area permanently, were it granted to them on easy terms? —* I think they would.

Q. 16. *Is the ayacut area under small tanks, generally as fit for garden cultivation, as the punjai lands in which the ryots now dig new wells? —* I cannot say exactly, but I think it is generally so.

Q. 17. *Would you allow of cultivation in the bed of the tanks handed over? if so, how would you assess it, and how would you prevent cultivation interfering with heading up water? —* Yes, I would; as my proposition precludes any further interference on the part of Government than collecting a fixed assessment on the consolidated principle on the entire area irrigable by the tank. On this principle, any cultivation made in the beds of tanks would be exempt from assessment. If by the cultivation of portions of tank beds, the supply of water for the cultivation of the land below is curtailed, and any such land is thrown out of cultivation, the loss arising therefrom would be the ryots', as would be also the profit arising from the cultivation of tank beds.

Q. 18. *Are there any tanks in your District which it would be better to breach, and so allow of punjai cultivation in the bed, instead of nunjai cultivation below them? —* I cannot call any to my recollection, but there may be one or two.

Q. 19. *Are there any tanks in your District so silted up, as to have become practically useless? and if so, how would you treat them? —* There are a few, perhaps; but I think, they could be restored by the ryots at a cost not beyond a reasonable proportion of the profits expected thereby. I would hand over such tanks to the ryots on proportionately more favorable terms.

Q. 20. *How would you compensate Inamdars and ryots who might suffer loss by any change of the existing system? —* I would compensate Inamdars by a remission out of the quit rent payable by them to Government. The position of ryots holding under Inamdars will not be affected by the change of the existing system.

Q. 21. *Do the ryots now keep up any tanks which the Government has practically abandoned? —* I think they must be doing so to some extent, otherwise, we cannot account for wet cultivation being, in a measure at least, kept up where it is.

Q. 22. *If so, do you know of any cases in which these tanks have been allowed to go to ruin from neglect on the part of the ryots? —* No.

Q. 23. *Many ruined tanks have, of late years, been made over to the ryots to do what they like with: have such tanks been usually repaired or neglected? —* Only twenty-nine small tanks have been made over in this District; and they appear to be kept in tolerably good repair.

Q. 24. *Taking all the advantages and disadvantages of retaining or abandoning small tanks into consideration, would you prefer maintaining them as at present, or from any local fund, or would you hand them over to the ryots to maintain? —* I would, under the conditions specified in para. 2, hand them over to the ryots to maintain, for it must be recollected that it might be worth the while of the ryots to restore or repair a tank, whilst Government could not do so with profit, since the ryots can do the work so much cheaper, for they would employ their own labours.

Q. 25. *Would it be necessary to legislate on the subject, and what provisions would you suggest for an act? —* It would not.

Q. 26. *Do the figures given in your former report on this subject, include all the tanks that in your opinion might be advantageously made over to the ryots? —* No, they do not.

Precis of Replies by Mr. G. Lee Morris, Collector of Tanjore, to Circular No. 3.

ABANDONMENT OF SMALL TANKS TO THE RYOTS.

Mr. G. Lee Morris, the Collector of Tanjore, states that he would hand over to the particular ryots cultivating under any rain fed tank, the maintenance of such a tank, if its maintenance or improvement would entail so much expense or trouble on Government as to render it not worth the while of Government to keep it, and if the ayacut under it had only been cultivated to a small extent; provided the majority of the ryots would agree to keep the tank in repair, and to pay the assessment at dry rates for such a defined extent of irrigable area as would not involve any considerable sacrifice of present realized revenue. The case of each such tank should be considered separately, and the provisions of the proposed act for enforcing Kudi-maramut should be extended to each such tank, after the majority of the ryots had agreed in writing to keep it up.

Replies by Captain R. F. Oakes, R. E., Superintending Engineer, of the
6th Division, (Tanjore and Trichinopoly), to Circular No. 3.

(Dated 1st April 1869.)

ABANDONMENT OF SMALL TANKS TO THE RYOTS.

The following observations bear reference to tanks only, for, as explained in the replies to Circular No. 1, certain minor channels have virtually been handed over to the ryots for maintenance.

Letter No. 1,263, dated
1st March 1869.

Question 1.—As an alternative to the maintenance of minor irrigation works, by the commutation or enforcement of Kudi-maramut, or by the imposition of a new irrigation cess, what do you think of the transfer to the ryots of a certain class of minor irrigation works?—I would not propose to transfer any tanks to the ryots, because I am of opinion that they would not maintain the tanks, and that by the reduction of the number of the tanks, or pools of water above the surface of the ground, the quantity of water in the wells would be found to decrease materially, and the wells would dry up far earlier than they now do, and villages might have to be abandoned in consequence.

Q. 5.—Would the ryots, as a general rule, be glad to take over these minor works on a reduced assessment, subject to the contingency of executing future repairs themselves?—I do not think the ryots would take over the minor tanks on a reduced assessment, for the other day I proposed to transfer a tank under the following highly advantageous circumstances, and yet the proprietor declined the offer.

There was formerly what is said to have been a large village of the name of Talagay, about five miles from the Salem boundary, on the road from Trichinopoly to Salem, via Tori-oro. This village has been abandoned, and also its tank.

Since the road was projected, two* Natives unconnected with that part of the country, have purchased lands at or near Talagay, and when I† examined the tank, I found that the breach had been closed, and a strong stone revetment was in course of construction to protect the bank at the site of the breach. This work was being carried out by the

* Sam Iyer, of Visvasa-
samoodrum, and Nullappa
Reddi, of Sagapuram.

† 28th January 1869.

new proprietors of the land under the tank; the remainder of the tank had a very good stone-revetment, but the bank was very low. The tank is supplied by the Talagayaur, a stream which drains 10 or 12 square miles of hilly country, above the site of what was said to be the remains of a rough stone dam for the supply of the tank, without any dam water can be diverted into the tank by excavating a small channel, but a rough stone dam would render the supply more secure, and that without any care or attention on the part of the proprietors, and there is plenty of stone in the neighbourhood. The tank itself is, in its present condition, somewhat shallow, but it could be made to contain a large supply of water, if repaired, and, except in the very dry weather, the supply may be said to be pretty constant, for so near the hills the rain-fall is very considerable and very constant. Having already done so much for the neighbourhood by bringing up laborers and forming a village for them, and having cultivated a considerable area with dry crops, and at last having expended some 150 or Rupees 200 (if not in cash in labor) on the tank, I thought the new proprietors would only be too glad to com-

plete the repairs to the tank at their own cost, if the assessment were reduced, and the tank handed over to them, and I suggested that they should complete the repairs to the tank, and have the land assessed as though under well cultivation instead of under tank-cultivation, or to pay Rupee 1 instead of 3 per acre on account of the water; but they would not hear of it, and begged that the tank might be repair-

ed at the cost of Government. I do not know the ayacut of the tank, but there was a rapid fall under it, and at least 5 or 600 acres could, I should suppose, be easily commanded by the tank, while chili and other vegetable gardens had already been planted in spots under the command of the tank.

Q. 6.—Would it be necessary to put these minor works into thorough repair, before handing them over to the ryots; and what precautions would you adopt for maintaining them in thorough repair?—If minor tanks are to be handed over to the ryots, I think it would be well to repair them thoroughly first, and a standard of efficiency having thus been fixed, the Revenue Department should have the power to compel the ryots to maintain the works up to that standard by Kudi-maramut.

Q. 8.—If all the parties interested do not agree, would you hand over the work to one or more individuals, subject to their distributing water to all the cultivators according to custom; and how would you enforce such an arrangement being acted up to?—If certain parties, who were interested in a tank, would not agree to contribute their share towards its maintenance when told that Government purposed to abandon the tank, I would prohibit their cultivating their land as nunjah, and would assess it as punjah, thereby allowing all the water to be used by those who agreed to keep up the tank and to be assessed at a reduced rate for nunjah. This would soon bring the recusants to their senses.

Q. 9.—Do you think that the ryots would keep up such tanks, or is gradual deterioration and final destruction to be apprehended? for instance, should breaches occur, would the ryots be likely to close them?—Unless the Revenue Department had the power to insist upon the tanks being kept up, I believe they would gradually be abandoned, especially should heavy breaches occur.

Q. 10.—If so, what interests would be endangered by making over the tanks to the ryots? Would the supply of drinking water, in certain cases, be likely to be interfered with or cut off?—Yes—see reply 1.

Q. 11.—Would it be safe to give up small tanks in jungly parts of the country, where there are but few wells, and perhaps no flowing water?—No.

Q. 12.—Would you merely regard the question in a financial point of view, or are the foregoing contingencies worthy of consideration?—The possibility of the wells running dry, and also the small tanks for watering cattle, should be considered far more than the mere financial question.

Q. 13.—How would you re-assess the ayacut of any works that might thus be transferred?—As cultivation under wells is now assessed.

Q. 14.—Could water be headed up in sufficient quantity to ensure the production of garden crops even if nunjah crops could not be raised?—Can only be replied to for each tank separately. I would leave it to the villagers to cultivate gardens or nunjah crops as they might deem proper.

Q. 15.—Would the ryots dig wells, and so improve the ayacut area permanently, were it granted to them on easy terms?—I expect not.

Q. 16.—Is the ayacut area under small tanks, generally as fit for garden cultivation, as the punjah lands in which the ryots now dig new wells?—I expect not.

Q. 17.—Would you allow of cultivation in the beds of the tanks handed over? If so, how would you assess it, and how would you prevent cultivation interfering with heading up water?—No.

Q. 18.—Are there any tanks in your District which it would be better to breach, and so allow of punjah cultivation in the bed, instead of nunjah cultivation below them?—I do not know that there are, but there are abandoned tanks which should not be restored, such as the Royen yairy tanks, near Cannanore, the restoration of which was suggested by a late Assistant Collector of Trichinopoly on one of those flying visits, when so little information is obtained that the practical advantage of the visit is nil, if not worse than nil.

Q. 19.—Are there any tanks in your District so silted up, as to have become practically useless? and, if so, how would you treat them?—Replied to in 18. Let the beds be cultivated and the nunjah lands be converted into punjah.

Q. 21.—Do the ryots now keep up any tanks which the Government has practically abandoned?—Not that I am aware.

Q. 24.—Taking all the advantages and disadvantages of retaining or abandoning small tanks into consideration, would you prefer maintaining them as at present, or from any local fund, or would you hand them over to the ryots to maintain?—If Kudi-maramut is to be extended, by all means hand over the minor tanks to the ryots, but only on condition that they are maintained, and give the Revenue Department power to enforce Kudi-maramut in such cases, so as to maintain the efficiency of the tank.

Q. 25.—Would it be necessary to legislate on the subject, and what provisions would you suggest for an Act?—Legislation would appear to be necessary to give Revenue Officers power to enforce Kudi-maramut.

2
Thursday, 4th March 1869.

MEMBERS PRESENT.

Colonel ANDERSON,
The Hon'ble T. CLARKE,
Captain MULLINS,
Mr. PUCKLE,

The Hon'ble V. RAMAYENGAR,
Mr. ROBINSON,
Mr. SIN,
Major SHAW STEWART.

The Hon'ble T. CLARKE, in the Chair.

Mr. G. BANBURY, Collector of Trichinopoly, re-called and examined.

Abandonment of small tanks to the ryots.

Question 1, in Circular No. 3. *As an alternative to the maintenance of minor irrigation works, by the commutation or enforcement of Kudi-maramat, or by the imposition of a new irrigation cess, what do you think of the transfer to the ryots of a certain class of minor irrigation works? — Our minor works are already as good as transferred to the ryots, and the present system is satisfactory; the ryots make the repairs, and we get a fair assessment; they do not ask for any change, and there is no reason why we should sacrifice a large amount of revenue for merely an idea. By Mr. Puckle's arrangements, at the time of settlement, the lands under these tanks were reduced to a low nunjah assessment, and thus now pay about 38 per cent. less than under the old system.*

On cross examination. (1.) Are the small tanks referred to by you, kept in good and efficient repairs by the cultivators without any interference from Government officers? If the Government servants are called on to interfere, what has been the nature of such interference? Are they usually supplied with water, and do the cultivators generally derive from them a wet crop? — Yes: they are kept in tolerable repair. We do not interfere in the matter, and a wet crop is annually obtained from a portion of the lands, although the whole ayacut is not perhaps annually irrigated.

Q. 2. If you are in favor of this, what class of minor irrigation works would you transfer? — I would transfer only small tanks, but I am not in favor of this arrangement.

Q. 3. What general limit of area and assessment would you fix on, and what exceptions would you make? — I would limit the area irrigable, or in



other words the "ayacut" to 20 acres, without regard to the assessment.

Q. 4. *On what principles, and on what terms would you make the transfer, and how would you ensure the enforcement of the terms?*— I consider that the word "transfer" should be taken in a guarded and restricted sense; if we mean a bonâ-fide and entire transfer, I think troubles and disputes regarding supply, ownerships, rights, and privileges are likely to occur. Supposing, for instance, in cases where one man had, or claimed a right to a share of the supply of water, or a right to water his cattle; by an entire transfer to one party or parties we perhaps annihilate prescriptive rights of years standing. As matters now stand, there are but few disputes as regards supply, and asserted individual rights, Government property being more respected than private. I would therefore transfer merely the right to repair, with the understanding that if these repairs were not duly made, the previous high assessment should be reverted to.

Q. 5. *Would the ryots, as a general rule, be glad to take over these minor works on a reduced assessment, subject to the contingency of executing future repairs themselves?*— Yes, I have no doubt they would.

Q. 6. *Would it be necessary to put these minor works into thorough repair, before handing them over to the ryots; and what precautions would you adopt for maintaining them in thorough repair?*— No, I think in the present state of low assessment and high prices the ryots would willingly do the necessary work. As above stated, the high assessment should be reverted to if the repairs were not properly done.

Q. 7. *Would it be necessary to take a written agreement from all the parties interested, before any work is made over to them; and how could the provisions of such an agreement be enforced?*— It might be done, but if their own interests did not prompt them to the due conservation of their tanks, I do not think the agreement would have much effect; the only point in terrorem over them would be the higher assessment, and reversion to Government.

Q. 8. *If all the parties interested do not agree, would you hand over the work to one or more individuals, subject to their distributing water to all the cultivators according to custom; and how would you enforce such an arrangement*

being acted up to?— The extent is small; so that there would not be very many disputes as regards the right to irrigate, and if many differences seemed likely to arise, it would be better either not to give them over, or to settle the matter finally by punchayet before making the transfer.

Q. 9. *Do you think that the ryots would keep up such tanks, or is gradual deterioration and final destruction to be apprehended?— for instance, should breaches occur, would the ryots be likely to close them?*— I consider that the Kurnums and Village Officers should be bound to keep an eye upon the holders of these tanks, and that reports should be made when any breaches are likely to occur; then orders from the Tahsildar would generally set matters right, as the repairs to these small reservoirs could not cost much.

Q. 10. *If so, what interests would be endangered by making over the tanks to the ryots? Would the supply of drinking water, in certain cases, be likely to be interfered with, or cut off?*— We must guard against this in the Muchalikah we take. But practically I do not consider that much difficulty would arise under this head, as an enquiry always takes place before giving over, and if it was shown that interests were endangered, the Collector would doubtless hesitate, and refuse to deliver over the reservoir to private hands.

Q. 11. *Would it be safe to give up small tanks in jungle parts of the country, where there are but few wells, and perhaps no flowing water?*— Unless the cultivation under them was unusually valuable, it would be better to let them remain as they are, or if given over, they should be carefully watched by Village Officers, to see that the drinking supply is not injured.

Q. 12. *Would you merely regard the question in a financial point of view, or are the foregoing contingencies worthy of consideration?*— In the above cases, I would not consider the few additional rupees' gain to Government, in comparison with the paramount importance of the drinking supply.

On cross examination. (I.) Do you think it advisable, on fiscal grounds, to make over a tank on dry assessment? Does it not amount to an entire Inam with all profit of a public work?— In the Trichinopoly District, if we make over the tanks on dry assessment according to the settlement plan, we are frequently

gainers, as the dry rates for both the ayacut and the tank bed surpass the wet assessment hitherto levied upon the ayacut alone. This is particularly the case in very shallow tanks where the water-spread is greatly in excess of the ayacut or irrigable area. If we make over the ruined tanks to the ryots under the Board's sanctioned stipulation that the owners pay Rupees 2 per acre, we are no losers, as this is about the average nunjah assessment now paid. As answered in my questions, only one tank has been made over upon these terms, and I believe the recipient heartily repents of his bargain. I do not therefore see how the land delivered over to a recipient can be termed an "Inam," when the holder has to pay just about the same as the regular assessment, and keep up the tank.

(II.) *Has the assessment become so low in Trichinopoly that the rule which restricts repairs to the amount of five years' Revenue derivable from the tank, interferes with urgent repairs? Give examples.* — The examples are of daily occurrence, and the difficulty arises in almost every instance. I have represented it to the Board two years ago. The assessment is so low, that the limitation of repairs to the amount of five years' beriz is generally prohibitory of the work being undertaken. Captain Oakes, in writing to me upon this point says:

(1.) "The assessment in Trichinopoly is now so low, that it is almost prohibitive of all improvement.

(2.) "The low assessment militates very strongly against the improvement even of existing tanks."

Q. 13. *How would you re-assess the ayacut of any works that might thus be transferred?—* According to the soil,—the wet land should be brought to its corresponding dry-rate.

On cross examination. (I.) *What is the average area of wet cultivation under each tank, and what would be the assessment derived from such area, supposing the ordinary nunjah assessment of such lands had been charged on the ayacut—what is the difference between the sum charged and the nunjah assessment above indicated?—* The average area would be about $3\frac{1}{2}$ acres, and they are now assessed with "the ordinary nunjah assessment" at the new settlement rates, and average about 2 Rupees an acre, or a little over.

Q. 14. *Could water be headed up in sufficient quantity to ensure the production of garden crops, even if nunjah crops could not be raised?—* This depends a good deal upon the soil, as all nunjah lands are not suited for garden crops. You could not get much of a garden crop out of pure black cotton soil. The season too, has everything to do with these rain-fed tanks. I think they prefer using the water from the tank for nunjah, and if one does this, the others must, as there will be no store.

Q. 15. *Would the ryots dig wells, and so improve the ayacut area permanently, were it granted to them on easy terms?—* I think so. This year I gave over the Padaloré tank, which the ryots asserted they intended to put in proper repair, and keep merely for furnishing an extra supply to their wells. In fact, the cultivators said they did not even care about a sluice, but would rely upon their present wells, and those hereafter to be dug, now that the tank was theirs, and about to be properly restored.

Q. 16. *Is the ayacut area under small tanks, generally as fit for garden cultivation, as the punjah lands in which the ryots now dig new wells?—* Much depends upon the soil, and whether wells could be profitably sunk. If they could be thus profitably constructed in any locality, we should most probably find them there. In the dry lands now taken up for garden, there is a larger field for selection both as regards soil and capability of obtaining water.

Q. 17. *Would you allow cultivation in the beds of the tanks handed over? if so, how would you assess it, and how would you prevent cultivation interfering with heading-up water?—* No, I would never allow this except in cases of utterly ruined tanks.

On cross examination. (I.) *Is the area bed of the tank charged to the holders of these small Government tanks? and is such area usually cultivated? Adding this item to the credit of the owners of small tanks, what do you calculate the difference to be between the full nunjah rate allowing for remissions, and the sum now paid for such tanks?—* The area of the tank-bed is never charged: in these cases it remains inviolate.

(II.) *You have also mentioned that you and Mr. Puckle gave over some other small tanks to the ryots; will you describe the character of such tanks, specifying the area of the nunjah land*

under them—the area of the bed of the tanks and the circumstances which led to the transfer, also the condition on which it was made, and the result of such transfer? Has it been encouraging or not, and have the Government officers been required to exercise any interference or restriction to keep such tanks in order? — Mr. Puckle made over forty-three small tanks to the ryots, and since then about twenty more have been similarly transferred, under the condition that the holders should pay dry assessment for both the water-spread, and the ayacut. I quote para. 33 of Mr. Puckle's report upon this transfer.

“ 33. The new punjah assessment of the water-spread of such tanks, and the cultivated area below them inclusive, is rather less than the former nunjah assessment of the cultivated area only, and wherever this cultivated area is held by not more than three or four ryots, it has been left optional to the latter to pay for the whole as punjah, or for the cultivated portion alone as nunjah, and in most cases the whole has been taken up as punjah; by this arrangement the Government are freed from even a nominal responsibility for the maintenance of forty-three small tanks, as well as from all future claims for remission for withered crops, while the ryots secure compact little properties, capable of great improvement, and which they may now cultivate in any way they please.”

No. of Tanks.	Nunjah area and assessment at former rates.		Punjah area and assessment at Settlement rates.		Difference.
43	1,086	2,628	2,696	2,024	604

The tanks thus given over have been, as far as I can judge, properly kept up, and I have received no representations to the contrary. But an almost universal opinion now prevails that it is better to let the rest remain as they are, upon nunjah assessment, with the tank-bed inviolate.

Q. 18. Are there any tanks in your District which it would be better to breach, and so allow of punjah cultivation in the bed, instead of nunjah cultivation below them? — There are many tanks so silted up that repairs would not pay; and, financially speaking, we might be losers by the restoration. I think, however, each case should be individually settled, as, in numerous instances.

revenue alone must not be considered—the water supply, the grazing in the tank bed when the water has subsided, and the increase of moisture in a country like this, are all local questions which should over-ride the mere revenue consideration. Moreover, if we lessen the water supply, we lessen the population, as emigration would soon largely commence from any tract of country deprived of this essential to existence.

Q. 19. Are there any tanks in your District so silted up, as to have become practically useless? and if so, how would you treat them? — Yes, there are some that it would not be worth while restoring and they are practically abandoned. Dry cultivation already goes on in the bed, and has been regularly assessed and entered in Mr. Puckle's Register.

Q. 20. How would you compensate Inamdars and ryots who might suffer loss by any change of the existing system? — I do not see how the Inamdars would be affected. If their lands in the old bed were injured by increased supply, arrangements might be made to give the Inamdars a portion of the irrigated land under the tank in exchange for the portion submerged. Again, all the small tanks, upwards of 800, although still nominally retained as Government works are practically abandoned and kept up by the ryots, but the system works excellently, and should not be disturbed.

Q. 21. Do the ryots now keep up any tanks which the Government has practically abandoned? — Mr. Puckle made over 43 of these small tanks to be cultivated as the ryots like, and to free us from all further responsibility regarding them; but the owners cultivate both the bed and the land dependent upon the tank; it is true these tanks and beds thus become, as Mr. Puckle says, “compact little properties,” but although I feel very great diffidence in objecting to any measures of Mr. Puckle, I think it would have been better to have retained the water-spread inviolate.

Q. 22. If so, do you know of any cess in which these tanks have been allowed to go to ruin from neglect on the part of the ryots? — No, they seem to be well kept up. I think very probably they adopt a better plan than ours, and take the earth from the silted-up inside portion, and place it on the bund; whereas, in accordance with the Department of Public Works' rules, we always take the earth from the adjoining land outside.

and thus serve to fill up the bed—we in fact add to the silt.

Q. 23. *Many ruined tanks have of late years been made over to the ryots to do what they like with: have such tanks been usually repaired or neglected?—*Our assessment is so light, that the 2 Rupees, authorized by the Board, is no inducement at all, and we have had no applications. Only one, this settlement, and it seems to me that the proprietor now repents of his bargain.

Q. 24. *Taking all the advantages and disadvantages of retaining or abandoning small tanks into consideration, would you prefer maintaining them as at present, or from any local fund, or would you hand them over to the ryots to maintain?—*Our present arrangement is good, and I really see no reasons for disturbing it: it works well: no one wants the change; and we should only lose revenue by the alteration.

Q. 25. *Would it be necessary to legislate on the subject, and what provisions would you suggest for an Act?—*No legislation is required.

Q. 26. *Do the figures given in your former report on this subject, include all the tanks that in your opinion might be advantageously made over to the ryots?—*In the former report it was stated very much as I now state, that matters should be left as they are.

Precis of Replies by Mr. G. Banbury, Collector of Trichinopoly, to Circular No. 3.

ABANDONMENT OF SMALL TANKS TO THE RYOTS.

Mr. G. Banbury, the Collector of Trichinopoly, is of opinion that the word "transfer" should be taken in a somewhat limited sense, as the entire relinquishment of all rights on the part of Government might lead to complications and loss of prescriptive rights. He states that, in his District, 800 small tanks are now kept up by the ryots upon payment of a low wet assessment, these small reservoirs being still considered to be Government property, and that, as all works well, he does not see why the present satisfactory system should be upset and the revenue decreased for the sake of an idea. He considers that the system at one time adopted of making over both the waterspread and irrigated land of these small tanks to private persons on dry assessment, does not now commend itself, and that it is better to retain the waterspread inviolate, as is the case with the 800 small tanks mentioned above. Further, that the assessment in Trichinopoly is now so low that in many cases the repairs of ruined and decaying tanks would not result in a gain to the revenue; he considers that the question of repairs and restorations to tanks should not be viewed from merely a financial point of view, as the water supply to man and beast, the grazing in the tank bed, the increase of moisture, and the supply to the adjacent wells, are all important considerations affecting the well-being of the country which, should over-ride any monetary notions: and that moreover if the water supply is lessened, the population is lessened owing to disease and emigration.

He finally states that as the assessment is now so light in his District, only one ryot has taken up a ruined tank under the Government rules which allow the owner of the reservoir, when repaired at his cost, to hold the land irrigated thereby at Rupees 2 per acre.

Thursday, 11th March 1869.

MEMBERS PRESENT.

The Honorable T. CLARKE,
Captain MULLINS,
Mr. PUCKLE,
The Honorable V. RAMAYENGAR,

Mr. ROBINSON,
Mr. SIM,
Major SHAW STEWART.

The Honorable T. CLARKE, in the Chair.

T. PATTABHIRAM PILLAI, Tahsildar of the Trichinopoly talook in the Trichinopoly District, re-called and examined.

Abandonment of Small tanks to the ryots.

Question 1. 2 & 3. in Circular No. 3.—As an alternative to the maintenance of minor irrigation works, by the commutation or enforcement of Kudi-maramut, or by the imposition of a new irrigation cess, what do you think of the transfer to the ryots of a certain class of minor irrigation works?—If you are in favor of this, what class of minor irrigation works would you transfer?—

General limit of area and assessment.
Ans.—You fix on, and what exceptions would you make?—All minor irrigation works that do not irrigate more than 20 acres may very well be made over to the ryots once for all, and allow them to enjoy the profits arising from their improving their works, so as to make it capable of irrigating a larger extent than that which it was irrigating at the time of such delivery. Small tanks watering 20 acres and less are now virtually kept up by the ryots themselves. They never were, at any time, repaired in this District.

*Q. 4.—On what principles, and on what terms would you make the transfer, and how would you ensure the enforcement of the terms?—*These tanks must be left to be kept up, by the ryots, on the principle that the repairs of such tanks are so less expensive, and the ryots holding lands under them so few and so directly interested in the up-keep of the tanks, that the presumption is, that the available Kudi-maramut labor, under such circumstances, should suffice generally to keep up such works. I would first put such tanks in a thorough repair by the aid of unpaid labor and make them over to the ryots taking a Muchilikah from them, binding them to keep them up in good repair and allowing them to enjoy the benefits arising from any improvement that they may effect, and making them understand that no remission will ever be allowed for lands under such tanks.

Q. 5.—Would the ryots, as a general rule, be glad to take over these minor works on a reduced assessment, subject to the contingency of executing future repairs themselves?—In this District, it is not necessary to reduce the assessment under such tanks as a sort of compensation for what it may cost the ryot for keeping them in good repair. These small tanks are not taken care of, but by the ryot who would only be too glad if the Government were to offer to reduce the assessment, without demanding of him any thing, over and above, what he now does.

Q. 6 & 7.—Would it be necessary to put these minor works into thorough repair, before handing them over to the ryots; and what precautions would you adopt for maintaining them in thorough repair?—Would it be necessary to take a written agreement from all the parties interested, before any work is made over to them; and how could the provisions of such an agreement be enforced?—Vide answer No. 4.

Q. 8.—If all the parties interested do not agree, would you hand over the work to one or more individuals, subject to their distributing water to all the cultivators according to custom; and how would you enforce such an arrangement being acted up to?—As the extent irrigated by such minor works must necessarily be small, the number of ryots holding lands under it cannot exceed two or three, and there will therefore be no difficulty in making them agree to the arrangement. But if they would not unanimously take charge of the tank, I would allow it to remain as it is, and get it repaired annually by Kudi-maramut labor.

Q. 9.—Do you think that the ryots would keep up such tanks, or is gradual deterioration and final destruction to be apprehended?—for instance, should breaches occur, would the ryots be likely to close them?—Trusting entirely to them, certainly would not answer our purpose. The village curnums must be made to report upon the state of these tanks annually, and if the interference of the authorities be necessary, the repairs must be got done by the Tahsildar by Kudi-maramut labor at once. There would not be much difficulty in getting all the needful repairs done and the breaches closed if the ryots are made to understand once for all that all repairs must be done by themselves. In

fact they do so just now in this District. In this very talook there are many such instances. The repairs of such small tanks do not cost general in above 10 Rs.

Q. 10.—If so, what interests would be endangered by making over the tanks to the ryots? Would the supply of drinking water, in certain cases, be likely to be interfered with, or cut off?—If in the Muchilikah we take from the ryots we add a provision strictly prohibiting all interference for the water being used for drinking purposes, it would quite do.

Q. 11.—Would it be safe to give up small tanks in jungly parts of the country, where there are but few wells, and perhaps no flowing water?—Tanks in the jungly parts are in no way better cared for than by the P. & W. If the talook authorities were to keep themselves informed annually and get them put in order, as detailed in answer No. 9, it would do.

Q. 12.—Would you merely regard the question from a financial point of view, or are the foregoing contingencies worthy of consideration?—In dry villages, where alone such minor irrigation works exist, the contingencies contemplated in the preceding questions are likely to occur and they are certainly worthy of consideration, and must be provided against. It won't do to regard the question in a financial point alone.

Q. 13.—How would you re-assess the ayacut of any works that might thus be transferred?—I would not at all re-assess the lands under the tanks to be thus transferred. I would make them over as they are.

Q. 14.—Could water be headed up, in sufficient quantity, to ensure the production of garden crops, even if nunjah crops could not be raised?—It depends much upon the local rains. There is nothing which the villagers have not as yet discovered to make their cultivation suit the season and the sources of irrigation.

Q. 15.—Would the ryots dig wells, and so improve the ayacut area permanently, even if be granted to them on easy terms?—The rates are easy enough in this District and they need not be made easier still. The circular in existence, that the profits arising from any improvements, in a tank, the ryots own expense, may be enjoyed by themselves, would do.

Q. 16.—Is the adjacent area under small tanks, generally as fit for garden cultivation, as the punjah lands in which the ryots now dig new wells?—A large portion of such extent is fit for garden cultivation but if wells are not as yet sunk, it is because, perhaps, they are not sure of water.

Q. 17.—Would you allow of cultivation in the beds of tanks handed over? if so, how would you assess it, and how would you prevent cultivation interfering with heading up water?—I am quite against allowing cultivation in the bed of any tank, however small it may be, as such practice was generally one of the causes of the ruin of several tanks. I know in many instances, the ryots, holding lands in the bed of tanks, cutting away the bank at night stealthily so that their crops may not be destroyed by flood.

Q. 18.—Are there any tanks in your District which it would be better to breach, and so allow of punjah cultivation in the bed, instead of punjah cultivation below them?—I know of no such tanks in this District that deserve to be breached and allowed punjah cultivation thereon. In one instance, however, I do remember, in the Huppur Maganah, of my having found out that the punjah assessment on the extent of the tank and its irrigated fields would exceed the total punjah assessment which the tank now yields.

Q. 19.—Are there any tanks in your District so silted up, as to have become practically useless? and if so, how would you treat them?—I know that many tanks have become less capacious than they formerly were from siltings but I don't think they are become practically useless. My opinion, in regard to the improvement of tanks which irrigate an extent above 20 acres, is to put them in thorough good order at once, half the expenditure being defrayed by the state; and take a Muchilikah from the ryots binding them to keep it in good repair for 12 years, and that all breaches, &c., that may occur in the interval must be closed by themselves, and make them understand that no remission will be granted except for extraordinary unfavorable seasons.

Q. 20.—How would you compensate Inamdars and ryots who might suffer loss by any change of the existing system?—The proposals

that I have above made, as far as I can see, cannot make, either the Inamdars or ryots, the sufferers. The tanks in the Inam villages, and the tanks owned by private individuals are entirely under their own control, and may still command the same jungle streams that flow into them, and they cannot be affected in the least by our arrangements in the Inam villages.

Q. 21.—Do the ryots now keep up any tanks which the Government has practically abandoned?—Yes, almost all small tanks in this talook are such as are abandoned by the Government virtually and kept up by the ryots, but I know of no instance in which such tanks were allowed to go to ruin.

Q. 22.—If so, do you know of any cases in which these tanks have been allowed to go to ruin from neglect on the part of the ryots?—The real and the chief cause of large tanks going to ruin is, I have found from my own observations, to be quite different from any neglect on the part of the ryots. That part of the country where tanks abound, I have often remarked in my tours is very undulating; in some places the plains are so low that if the country is flooded, whole villages would be washed away. When such unusual floods wash away the banks of large tanks and silt up all cultivable punjah lands under it, it would not be easy, either to put the tank in repair, or remove the siltings on the lands. Neither is it worth the enormous amount that must be expended to reclaim the silted up punjah lands. In such instances those tanks will have to be newly formed in most cases. These ruined tanks must therefore be fit for punjah cultivation only; and this must be, I suppose, the reason of the ruin of a great number of tanks in the Coimbatore District, which Mr. Grant brought to notice 6 years ago, and upon which the Board's Circular about ruined tanks was based.

Q. 23.—Many ruined tanks have of late years been made over to the ryots to do what they like with: have such tanks been usually repaired or neglected?—In this District there was only one instance, and that too, during the Jummahbundy of this year, in which a ruined tank was made over formally. There are many

**Replies of Mr. T. Longley, Acting Collector of the Tinnevely District, to
Circular No. 3.**

(Dated 24th March 1869.)

ABANDONMENT OF SMALL TANKS TO THE RYOTS.

*Question 1 to 3.—As an alternative to the maintenance of minor irrigation works, by the commutation or enforcement of Kudi-marambat, or by the imposition of a new irrigation cess, what do you think of the transfer to the ryots of a certain class of minor irrigation works?—If you are in favor of this, what class of minor irrigation works would you transfer?—What general limit of area and assessment would you fix on, and what exceptions would you make?—*In reply to the 1st Question in the Irrigation Cess paper, I gave it as my opinion that all tanks which have fallen into a bad state of disrepair or the soil under which is not favorable for wet cultivation, should be made over *unconditionally* to the ryots on a uniform dry assessment to do what they like with; the number of such tanks in Tinnevely amounts to 488. There are however other tanks more favorably circumstanced, some irrigating a larger area and better soil, which I would *transfer conditionally* to the ryots on their agreeing to maintain them in a proper state of repair, and these should be tanks, the *ayakut* of which does not exceed 25 acres with an average assessment of 150 Rupees. The exceptions I would make would be in favor of tanks capable of irrigating a larger area and the Revenue under which would be increased if put in thorough repair and enlarged.

*Q. 4.—On what principles, and on what terms would you make the transfer, and how would you ensure the enforcement of the terms?—*I would make the transfer on the score of general convenience to the State and the people; and in consideration of the ryots paying a reduced assessment, and on the condition of their keeping the tanks in thorough repair under a penalty of a fine not to exceed double the cost of repair. I would enforce this by a Legislative enactment.

*Q. 5.—Would the ryots, as a general rule, be glad to take over these minor works on a reduced assessment, subject to the contingency of executing future repairs themselves?—*Generally they would on reduction of assessment and the contingency mentioned in reply to Query No. 4.

*Q. 6.—Would it be necessary to put these minor works into thorough repair, before handing them over to the ryots; and what precautions would you adopt for maintaining them in thorough repair?—*The works must, of course, be put in thorough repair. If the ryots are made distinctly to understand that they will be liable to a penalty for default, that will answer the purpose.

*Q. 7.—Would it be necessary to take a written agreement from all the parties interested, before any work is made over to them; and how could the provisions of such an agreement be enforced?—*Yes, a written agreement, to be enforced summarily by special enactment.

*Q. 8.—If all the parties interested do not agree, would you hand over the work to one or more individuals, subject to their distributing water to all the cultivators according to custom; and how would you enforce such an arrangement being acted up to?—*As a general rule I would hand over the work to the whole of the ryots interested. Should there be any difference of opinion, the work might be made over to one or more of them, on condition of their conforming to the usual practice of the village in respect to the distribution of water and with the benefit of the reduced assessment. These conditions must be enforced by a special enactment.

Q. 9.—Do you think that the ryots would keep up such tanks, or is gradual deterioration and final destruction to be apprehended?—for instance, should breaches occur, would the ryots be likely to close them?—A special enactment must provide penalties punishing any laches on the part of the ryots.

Q. 10.—If so, what interests would be endangered by making over the tanks to the ryots? Would the supply of drinking water, in certain cases, be likely to be interfered with, or cut off?—No—my experience tells me the ryots would be careful to preserve their supply of drinking water, but the basis of my recommendation is a special enactment to enforce the terms of the agreement by which the ryots take the tank on a reduced assessment.

Q. 11.—Would it be safe to give up small tanks in jungly parts of the country, where there are but few wells, and perhaps no flowing water?—I do not see any objection to the abandonment, if the ryots are required by special enactment to keep the tank in repair.

Q. 12.—Would you merely regard the question in a financial point of view, or are the foregoing contingencies worthy of consideration?—I think Government and the people will be mutually benefited by the transfer.

Q. 13.—How would you re-assess the ayacut of any works that might thus be transferred?—I do not quite understand the Question. I have already said I would reduce the assessment on making over the tank to the ryots.

Q. 15.—Would the ryots dig wells, and so improve the ayacut area permanently, were it granted to them on easy terms?—Undoubtedly to the best of their ability.

Q. 16.—Is the ayacut area under small tanks, generally as fit for garden cultivation, as the punjai lands in which the ryots now dig new wells?—Yes, if not too moist.

Q. 17.—Would you allow of cultivation in the beds of the tanks handed over? if so, how would you assess it, and how would you prevent cultivation interfering with heading up water?—I would make it a condition that there should be no cultivation in the beds of tanks.

Q. 18.—Are there any tanks in your district which it would be better to breach, and so allow of punjai cultivation in the bed, instead of nunjai cultivation below them?—Yes, 488 and these, as I have before said, I would make over to the ryots on a uniform dry assessment to do what they liked with.

Q. 19.—Are there any tanks in your district so silted up, as to have become practically useless? and if so, how would you treat them?—Yes, a few, which I would also make over to the ryots on punjai assessment.

Q. 20.—How would you compensate Inamdars and ryots who might suffer loss by any change of the existing system?—No compensation would be required for ryots, as they would enjoy the benefit of the dry assessment. But the Inamdars might receive compensation either in money or in land.

Q. 21.—Do the ryots now keep up any tanks which the Government has practically abandoned?—No.

Q. 22 and 23.—If so, do you know of any cases in which these tanks have been allowed to go to ruin from neglect on the part of the ryots?—Many ruined tanks have of late years been made over to the ryots to do what they like with: have such tanks been usually repaired or neglected?—Ruined tanks to be made over to the ryot, would be generally entirely silted up, or

in such a state of disrepair that it would not pay the ryot to do any thing with them, except cultivate on a reduced assessment, and this they are glad to do.

Q. 24 and 25.—Taking all the advantages and disadvantages of retaining or abandoning small tanks into consideration, would you prefer maintaining them as at present, or from any local fund, or would you hand them over to the ryots to maintain?—Would it be necessary to legislate on the subject, and what provisions would you suggest for an Act?—I would hand them over to the ryots providing for the maintenance by special enactment. The leading provisions of the Act being, that the ryots should maintain these tanks under a penalty not in excess of double the actual cost of repair, to be recovered summarily by distraint.

Q. 26.—Do the figures given in your former report on this subject, include all the tanks that in your opinion might be advantageously made over to the ryots?—The tanks referred to in Mr. Silver's Report amount to 488 ruined tanks, these may well be transferred on dry assessment, according to the instructions of the Board as per margin. But there are many besides, viz., those I now speak of, which may be maintained by the ryots under an agreement to be enforced by special enactment.

Standing Circular No. 3, dated 12th January 1863, para. 2. Collector's letter to Board, dated 27th October 1862, No. 410.

Replies of Mr. J. B. Pennington, Sub-Collector of the Tinnevely District,
to Circular No. 3.

(Dated 7th April 1869.)

ABANDONMENT OF SMALL TANKS TO THE RYOTS.

Question 1. *As an alternative to the maintenance of minor irrigation works, by the commutation or enforcement of Kudi-maramut, or by the imposition of a new irrigation cess, what do you think of the transfer to the ryots of a certain class of minor irrigation works?—*I think it most advisable.

Q. 2. *If you are in favor of this, what class of minor irrigation works would you transfer?—*All minor isolated rainfed tanks on the recommendation of the Collector in each individual case, after consultation with the Engineer.

Q. 3. *What general limit of area and assessment would you fix on, and what exceptions would you make?—*None whatever.

Q. 4. *On what principles, and on what terms would you make the transfer, and how would you ensure the enforcement of the terms?—*Assess the areas under them as dry land. It is sufficiently well understood now that there is no remission on dry land.

Q. 5. *Would the ryots, as a general rule, be glad to take over these minor works on a reduced assessment, subject to the contingency of executing future repairs themselves?—*I think they would.

Q. 6. *Would it be necessary to put these minor works into thorough repair, before handing them over to the ryots; and what precautions would you adopt for maintaining them in thorough repair?—*No, I think not; nor would I take any precautions for maintaining them in repair. If it is worth the Villager's while to repair them, it was not worth while for the Government to keep them. As a matter of fact, most of these small tanks cost 50 per cent. of their revenue in repairs.

Q. 7. *Would it be necessary to take a written agreement from all the parties interested before any work is made over to them; and how could the provisions of such an agreement be enforced?—*Certainly not.

Q. 8. *If all the parties interested do not agree, would you hand over the work to one or more individuals, subject to their distributing water to all the cultivators according to custom; and how would you enforce such an arrangement being acted up to?—*I cannot imagine their not agreeing; and surely Government is not bound to assess land highly for the purpose of remitting the assessment. I would not attempt to interfere with the distribution of water.

Q. 9. *Do you think that the ryots would keep up such tanks, or is gradual deterioration and final destruction to be apprehended?—*for instance, should breaches occur, would the ryots be likely to close them?—I think they would if they were worth keeping up. If not, they might as well be finally destroyed and the beds cultivated.

Q. 10. *If so, what interests would be endangered by making over the tanks to the ryots? Would the supply of drinking water, in certain cases, be likely to be interfered with, or cut off?—*No, I should say not; if they were required for drinking water, I think they would be kept up.

Q. 11. Would it be safe to give up small tanks in jungly parts of the country, where there are but few wells, and perhaps no flowing water?—Yes, I think so.

Q. 12. Would you merely regard the question in a financial point of view, or are the foregoing contingencies worthy of consideration?—I think the financial is the only point of view that need be considered.

Q. How would you re-assess the ayacut of any works that might thus be transferred?—As per value according to its value.

Q. 14. Could water be headed up in sufficient quantity to ensure the production of garden crops, even if nunjah crops could not be raised?—Probably it might.

Q. 15. Would the ryots dig wells, and so improve the ayacut area permanently, were it granted to them on easy terms?—I believe they would.

Q. 16. Is the ayacut area under small tanks, generally as fit for garden cultivation, as the punjah lands in which the ryots now dig new wells?—I think it is generally.

Q. 17. Would you allow of cultivation in the beds of the tanks handed over? if so, how would you assess it, and how would you prevent cultivation interfering with heading up water?—Not unless it was applied for jointly by all the ryots interested; then as ordinary dry land. If all concerned applied for it, they would take care it did not interfere with the required supply of water.

Q. 18. Are there any tanks in your district which it would be better to breach, and so allow of punjah cultivation in the bed, instead of nunjah cultivation below them?—I don't know of any such.

Q. 19. Are there any tanks in your district so silted up, as to have become practically useless? and if so, how would you treat them?—I don't remember any; but the tendency is of course in that direction, and the only treatment seems to be to abandon them and make new tanks below them. It is, I believe, bad economy to try to deepen them.

Q. 20. How would you compensate Inamdars and ryots who might suffer loss by any change of the existing system?—I don't understand how they would be likely to suffer; but I should not apprehend any particular difficulty in dealing with individual cases as they arose.

Q. 21. Do the ryots now keep up any tanks which the Government has practically abandoned?—I am not personally acquainted with any such cases.

Q. 23. Many ruined tanks have of late years been made over to the ryots to do what they like with: have such tanks been usually repaired or neglected?—I don't know any such tanks in my range. Great difficulty and opposition have been made whenever offers have been received for the repair of ruined tanks.

Q. 24. Taking all the advantages and disadvantages of retaining or abandoning small tanks into consideration, would you prefer maintaining them as at present, or from any local fund, or would you hand them over to the ryots to maintain?—I would certainly hand them over to the ryots as a general rule.

Q. 25. Would it be necessary to legislate on the subject, and what provisions would you suggest for an Act?—No.

Q. 26. Do the figures given in your former report on this subject, include all the tanks that in your opinion might be advantageously made over to the ryots?—Each case should be decided on its own merits, in accordance with the rules laid down for the repair of ruined tanks. Fresh cases would be constantly arising.

Memorandum by Mr. C. A. Gallon, Assistant Collector of the Coimbatore District,
in reply to Circular No. 3.

(Dated 17th March 1899.)

ABANDONMENT OF SMALL TANKS TO THE RYOTS.

I do not advocate the transfer to the ryots of small tanks, because I am certain that gradual deterioration and final destruction would be the result. Even if the tank was put into thorough repair before being handed over, should any extensive breach occur afterwards, the money requisite for closing it would not be forthcoming, and it would be very difficult to enforce the provisions of any agreement framed for the purpose of rendering the execution of such repairs compulsory.

As an instance, I may mention the Rungayan tank, Varadapoliem village in Sathiyamangalum talook, which was handed over to two individuals, who engaged to close the breaches and bring a certain proportion of the Ayacut under wet cultivation yearly. The tank was handed over 15 years ago. No steps have been taken to close the breaches, and not a single cawny of land has been brought under wet cultivation. Consequently it has been found necessary to resume the tank for non-compliance with the conditions on which it was handed over.

When conducting the Jamabandy of the Bowany talook this year, I found that several small tanks had been handed over during the past five years to private individuals, who engaged to put them in repair and pay an assessment of Rupees 2-8-0 per acre, about half the nunjah assessment, but I found that no steps had as yet been taken to repair the tanks, one alleging that the tank had breached again after repair, another that he is collecting materials, and about to commence operations.

The real object of such speculators is, 1st, to get possession of the whole waste land under the tank with a view to cultivating a garden crop on it; 2nd, to get the bed of the tank for grazing ground. The speculator trusts that he will get remission at the settlement on the strength of his plea of inability to execute the necessary repairs, and whether he gets remission or not, he is amply repaid by the cultivation of garden produce. Meanwhile no steps are taken to repair the tank.

I am of opinion that such tanks should be left as they are, if the Government is unable to bear the cost of repairing them, or if they are not worth repairing.

I would not allow cultivation in the bed of the tank for two reasons:—

1st.—During the wet season, there will always be some water in the tank, which percolates through to the wells in the neighbourhood, and also furnishes a supply of drinking water for the cattle.

2nd.—During the dry season, the bed of the tank affords pasturage for the cattle. If the beds of the tanks are given over for cultivation, the ryots who own wells in the neighbourhood will feel the difference very considerably, and the only gain to Government would be the assessment on the cultivated area, which would amount to a very insignificant sum, as first class peonjah is the highest rate which could be fixed.

On the other hand, if the assessment on the Ayacut area is reduced to garden assessment, the ryots will sink wells and carry out permanent improvements, and, whereas now remission must be granted annually and only peonjah assessment can be charged, the ryots will raise garden and nunjah crops by means of their wells with the aid of occasional freshes in jungle streams, and will cheerfully pay garden assessment.

The Ayacut area under tanks is more fit for garden cultivation than ordinary poonjah land, and the profits to be derived by cultivating garden crops are often greater than could be obtained by cultivating nunjah. For instance, paddy raised by well irrigation fetches a higher price than paddy raised under tanks. Moreover, when a tank is out of repair, the supply of water is so uncertain that no ryot will attempt to raise nunjah produce unless he has a well with which to supplement the supply of water from the tank.

I feel certain, therefore, that the ryots themselves would prefer to have their assessment permanently reduced to garden rate instead of having the tank handed over to them for repair; that they would sink wells and raise garden produce, and that no demand would ever be made for remission.

The tank if left in repair would keep a sufficient store of water for the cattle for some months, and when pasturage becomes scarce would be available as grazing ground, so that all the ryots would derive some advantage from it. I refer of course only to those tanks which have fallen so much into decay as to be past repair, or which, though capable of repair, are not worth the expenditure.

Replies of R. Ragoonatha Row, Deputy Collector of the Coimbatore District to Circular No. 3.

(Dated 27th February 1869.)

ABANDONMENT OF SMALL TANKS TO THE RYOTS.

*Question 1.—As an alternative to the maintenance of minor irrigation works, by the commutation or enforcement of Kudi-maramut, or by the imposition of a new irrigation cess, what do you think of the transfer to the ryots of a certain class of minor irrigation works?—*I have always been of opinion, that there should be no Government interference in small irrigation works, except when the parties concerned desire the professional aid of Government Officers; it should be afforded to them gratis or otherwise at the discretion of the chief Revenue Officer of the District. I would, therefore, make over to ryots all tanks watering 20 acres and less of wet lands on condition that these tanks would be kept up by them in good condition, that they would pay on the ayacut to Government the highest dry assessment of the village. An agreement should however be taken from the ryots to the effect that, should they fail to keep up the tanks, they would be put in order by Government officials, and then its cost with a fine collected from them as arrears of Land Revenue.

*Q. 2.—If you are in favour of this, what class of minor irrigation works would you transfer?—*The above arrangement should be carried out as a rule, but there may be cases in which public good would require that the conservancy of certain tanks, though small, must be in Government hands. These should be disposed of on their respective merits by the Collector, subject to the approval of the Board of Revenue.

*Q. 3.—What general limit of area and assessment would you fix on, and what exceptions would you make?—*Whatever may be the loss to Government by this arrangement, it would be more than counterbalanced by the common good effected both to Government and the ryots. The time of the many highly paid officials of Public Works Department, would be turned to more important works, the people freed from the interference of the petty subordinates of the same Department, and taught some lesson at self-government. The transfer would be hailed by people as it is accompanied by a reduction of assessment.

*Q. 4.—On what principles, and on what terms would you make the transfer, and how would you ensure the enforcement of the terms?—*There are certain small tanks in the Districts of Tanjore, Trichinopoly, Kurnool, and Coimbatore, which were never repaired by Government: although the tracts cultivated from their waters pay a nunjah assessment to Government. Such, of course I would not interfere, beyond taking a moochilka from the ryots that they would be maintained by them as hitherto, and that they would make themselves liable, by their neglect, to the similar penalties imposed on the ryots of villages, the tanks of which used to be repaired jointly by Government and the people. I am also of opinion that by handing over tanks as aforesaid on the condition of the irrigated extent paying the highest dry rate of the village, the Government would be no loser in a financial point of view, if this be done by a special agency carefully selected.

*Q. 5.—Would the ryots, as a general rule, be glad to take over these minor works on a reduced assessment, subject to the contingency of executing future repairs themselves?—*I believe, from what I have stated above, that I have replied to questions 1 to 5.

Q. 6.—Would it be necessary to put these minor works into thorough repair, before handing them over to the ryots; and what precautions would you adopt for maintaining them in thorough repair?—I would put into thorough repairs these works before they are handed over to the ryot, and would insist on their being inspected once in 3 months at least by the Revenue Inspectors, once in 6 months by the Tahsildars, or the Deputy Tahsildars, and once in a year or two by the Divisional Officers. These officers should be held personally responsible for the due enforcement of the agreement entered into by the ryots. These rules should be no bar for their inspection by the Officers of Public Works Department, whose reports on their condition should be submitted to the Collector.

Q. 7.—Would it be necessary to take a written agreement from all the parties interested, before any work is made over to them; and how could the provisions of such an agreement be enforced?—A written agreement is necessary, and should be enforced by the same means by which the arrears of Land Revenue are collected.

Q. 8.—If all the parties interested do not agree, would you hand over the work to one or more individuals, subject to their distributing water to all the cultivators according to custom; and how would you enforce such an arrangement being acted up to?—I believe all the ryots would agree to these terms, when properly explained by officers whom they respect, and in whom they have confidence. If any however do not agree, I would make over the works to the rest, to whom will be transferred all the privileges and liabilities of the transfer, viz., they would execute the repairs and receive the difference of the dry and wet assessments.

Q. 9 and 10.—Do you think that the ryots would keep up such tanks, or is gradual deterioration and final destruction to be apprehended?—for instance, should breaches occur, would the ryots be likely to close them?—If so, what interests would be endangered by making over the tanks to the ryots? Would the supply of drinking water, in certain cases, be likely to be interfered with, or cut off?—I believe the ryots would keep up those tanks and close the breaches, as these tanks are not extensive. I do not apprehend any injury, either to the interests of the public, or of Government by the transfer.

Q. 11.—Would it be safe to give up small tanks in jungly parts of the country, where there are but few wells, and perhaps no flowing water?—I think that it would not be unsafe to give up tanks even in such localities as jungly parts of the country, as, by keeping them under Government conservancy, they are seldom or never visited by their officers, the consequence has been that they are in a state which cannot be rendered worse.

Q. 12.—Would you merely regard the question in a financial point of view, or are the foregoing contingencies worthy of consideration?—I would not make over any tank, if there be the slightest chance of its not being kept up; for in determining that such transfer should be made, one should not be influenced simply from consideration of economy to Government. Public weal and convenience should certainly weigh with him. Cattle disease generally break up from want of water. Effects of famine are rendered worse from the same cause. I would, therefore, keep up these sources of water at any cost to Government. I would not, therefore, regard the question in a financial point of view only.

Q. 13.—How would you reassess the ayakut of any works that might thus be transferred?—I would assess the ayakut under the transferred tanks, as a rule, at the highest dry rate of the village. I think this rate should be the maximum, and the average of all the dry rates in a village should be the minimum. The settling officers must be left to choose any rate between these two, in consideration of the nature of the soil, the certainty or otherwise of the source of

irrigation, the proximity of the irrigated lands to the village site, the density of the population, the wealth and habits of the ryots, and lastly, the financial result of the measure to Government.

Q. 14.—Could water be headed up in sufficient quantity to ensure the production of garden crops, even if nunjah crops could not be raised?—I fancy that certain garden crops would require more water than those of the nunjah, others may require less. In years of bad seasons, water could be headed up in a quantity sufficient for the latter crops.

Q. 15.—Would the ryots dig wells, and so improve the ayakut area permanently, were it granted to them on easy terms?—If the assessment on the ayakut be permanently fixed as above proposed and the ryots become fully aware that on no account their taxes would be raised, in proportion to the profits they may realize from improvements made to their landed property, I have no doubt that they would, amongst other things, dig wells also.

Q. 16.—Is the ayakut area under small tanks, generally as fit for garden cultivation, as the punjah lands in which the ryots now dig new wells?—My experience induces me to answer this query in the negative. Lands fit for nunjah generally, under tanks, are not as fit for garden cultivation. Even the poorest soil can yield some nunjah crop, but to be fit for a garden, it must be at least moderately good soil.

Q. 17.—Would you allow of cultivation in the beds of the tanks handed over? if so, how would you assess it, and how would you prevent cultivation interfering with heading up water?—I have always been against the bed of tanks being cultivated, at any season of the year. Such a thing raises the level of the bed, and by degrees most materially interferes with the necessary storing up of water in the tanks. These evils I observed in many places in Kurnool, and so long as I and Mr. Minchin were in the District, we invariably prohibited any cultivation on the beds of tanks. I would clearly demarcate the beds and make it penal to cultivate any part of them under any circumstances.

Q. 18.—Are there any tanks in your District which it would be better to breach, and so allow of punjah cultivation in the bed, instead of nunjah cultivation below them?—Tank beds silted up to an extent rendering it impossible to make them hold any water, may be treated as dry lands and assessed, as a rule, at the highest dry rate of the village.

Q. 19.—Are there any tanks in your District so silted up, as to have become practically useless? and if so, how would you treat them?—If any reasonable amount can convert them to a tank and its existence as such be a great convenience to the people, I would certainly restore them.

Q. 20.—How would you compensate Inamdars and ryots who might suffer loss by any change of the existing system?—An Inamdar is a person who has been allowed by the State to appropriate to himself either the whole or some portion of the Government money assessment on land or Government share of the produce of land in kind. He in some cases pays his quota for the repairs, and in others, Government contribute it for him. In the case in which he receives the Government share in cash and contributes to the repairs, the difference in cash forms his loss by the transfer above proposed, which amount may be made payable to him from the puttals of the ryots who pay him, and from those of others. If the Inamdar was the receiver of Government share in kind, no compensation would be necessary, as the land though classed as dry for Government purposes, would still be cultivated wet and the Inamdar's share would be paid by the ryots. If the Inamdar be the land-owner also, a reduction in the quit-rent paid by him to Government would meet the ends of justice.

Q. 21 and 22.—Do the ryots now keep up any tanks which the Government has practically abandoned?—If so, do you know of any cases in which these tanks have been allowed to go to ruin from neglect on the part of the ryots?—I have seen in Kurnool, tanks, not repaired by Government, often kept up by the ryots.

Q. 23.—Many ruined tanks have of late years been made over to the ryots to do what they like with: have such tanks been usually repaired or neglected?—In none of the Districts I am personally acquainted with, were tanks formally made over to ryots.

Q. 24.—Taking all the advantages and disadvantages of retaining or abandoning small tanks into consideration, would you prefer maintaining them as at present, or from any local fund, or would you hand them over to the ryots to maintain?—I would certainly hand over tanks of the description above alluded to, to the ryots to maintain.

Q. 25.—Would it be necessary to legislate on the subject, and what provisions would you suggest for an Act?—No legislation is, I think, necessary on the subject. The agreement or moochilka referred to in para. 1 of this letter would, I believe, answer all the purposes of Government.

Letter from Mr. G. A. Ballard, Collector of Malabar, No. 416 A, replying to Circular No. 3.

(Dated 27th February 1869.)

ABANDONMENT OF SMALL TANKS TO THE RYOTS.

Adverting to your Commission's Circular No. 3, I have the honor to observe that there are no tanks maintained by Government in Malabar. The questions propounded therefore do not apply to this District. But the question of the maintenance or abandonment by Government of small tanks in our provinces seems to me of much importance, and I am induced to offer for the Commission's consideration a few brief remarks on it generally.

2. With large irrigation schemes in hand and in prospect, I am inclined to think Government may, as a rule, give up the small tanks. They cannot give very large returns; and well managed works of importance are likely to be much more remunerative; whilst Government ostensibly retains them in its keeping, it is bound to maintain them efficiently, or loss may be caused to cultivators who have placed confidence in the Government guardianship. The Government Officers are harassed with the charge of many petty works and time spent upon them that probably might be much better employed. The ryots interested can certainly maintain such small works more economically than Government can, and generally where the up-keep is likely to be remunerative, will attend to it for their own sakes, when they find that it depends on themselves. This will be the case in the more populous and highly cultivated parts of the country, and will be increasing so with our rapidly increasing material prosperity. The more liberal revenue policy which has guided Government for the last 15 years has, I believe, given the ryots heart and means that they did not before possess, and I conceive there is little fear of small tanks being abandoned by the people if really worth up-keep.

3. Because, therefore, I think that on purely financial considerations we can, with benefit, concentrate Government attention on the larger works; because the measure will give considerable relief to the Department Public Works; and maintenance where remuneration is likely to be efficiently attended to by the ryots, I incline to recommend small tanks being made over to them.

4. In some of the poorer and more remote parts of the country, however, it may be desirable to keep these works in Government hands for some years to come, and in particularly dry localities, I would carefully retain all tanks whose relinquishment by Government might endanger their maintenance, if the neighbourhood is likely to suffer seriously by their being allowed to go to decay. Here, financial considerations apart, it is clearly an administrative duty to see that the water supply is efficiently maintained as far as it is in the power of Government to do so.

